us-10-080-522-1.rpr

Page 1

```
October 17, 2005, 06:04:49; Search time 52 Seconds (without alignments) 458.880 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                      OM protein - protein search, using sw model
                                                                                                                                                         Run on:
```

US-10-080-522-1 1308 1 MQTCPLAFPGHVSQALGTLL.......PLGALELLSPQPLFPYAADP 248 Perfect score: Sequence: Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

283416 Total number of hits satisfying chosen parameters:

283416 segs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

|            | Description           | probable lipoprote | probable isocitrat | probable membrane | unknown protein T1 | competence protein | genome polyprotein | mock protein - Rhi | conserved hypothet | glycoprotein gp13 | genome polyprotein | genome polyprotein | polyamine transpor | glycoprotein gp13 | glycoprotein E - h | hypothetical prote | _   | ¤    | hypothetical prote | hypothetical prote | o.     | gag protein - feli | conserved hypothet | hypothetical prote | CDO protein - huma | genome polyprotein | genome polyprotein | aquaporin-like tra | hypothetical prote | _   |
|------------|-----------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|-----|------|--------------------|--------------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----|
| SUMMARIES  |                       | 725                | 167                | 885               | 747                | 053                | 048                | 574                | 669                | 114               | YTP                | 554                | 808                | BEH               | E18                | 980                | 620 | 737  | 736                | 475                | JFP    | 819                | 562                | 911                | 097                | YTN                | YTM                | 260                | 170962             | 134 |
| -          | ΩI                    | 564                | T07167             | T36885            | H96747             | AI2                | A44                | 851574             | A82                | B46114            | GNNYTP             | S13554             | A83                | VGBEEH            | VGBE18             | E71086             | T15 | A55. | F72736             | T46475             | FOLJEP | 823819             | C87562             | T48811             | T03097             | GNNYTN             | GNNYTM             | T09260             | B70                | T51 |
|            | BB                    | N                  | 0                  | N                 | ~                  | 7                  | N                  | -                  | 7                  |                   |                    |                    |                    |                   |                    |                    |     |      | ~                  |                    |        |                    |                    |                    |                    |                    |                    |                    |                    |     |
|            | Query<br>Match Length |                    | 393                | 271               | 1088               | 798                | 929                | 493                | 420                | 468               | 2303               | 2303               | 289                | 468               | 550                | 4436               | 233 | 288  | 636                | 398                | 450    | 450                | 312                | 541                | 1240               | 2301               | 2303               | 290                | 407                | 950 |
| <b>9</b> 4 | Query                 | 7.9                | 7.2                | 6.9               | •                  |                    |                    |                    | •                  | •                 |                    |                    |                    | 6.4               | ٠                  |                    | 6.3 |      | 6.3                | •                  | •      | •                  | ٠                  |                    |                    | 6.2                | •                  | 6.1                |                    | 0.9 |
|            | Score                 | 103.               | 94.5               | o.                | 90                 | 83                 | 86.5               | 98                 | 5.                 | 85.5              | ď.                 | ď.                 | 4                  | m.                | 83                 | 83                 | ď   | 82.5 | 82.5               | 82                 | 81     | æ                  |                    | •                  |                    | 80.5               |                    | 80                 | 79                 | 79  |
|            | Result<br>No.         | 4                  | 7                  | e                 | 4                  | ß                  | 9                  | 7                  | 80                 | σ                 | 10                 | 11                 | 12                 | 13                | 14                 | 15                 | 16  | 17   | 18                 | 19                 | 20     | 21                 | 22                 | 23                 | 24                 | 25                 | 26                 | 27                 | 28                 | 29  |

| hypothetical prote | glycoprotein I pre | M-sema F protein p | Ig L1 chain V regi | hypothetical prote | transmembrane prot | trg-31 protein - g | membrane glycoprot | lipopolysaccharide | 3-phosphoshikimate | alpha-dextran endo | DN-cadherin - frui | titin, cardiac mus | class I histocompa | transketolase tkt | ribonucleoside-dip |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|
| T51012             | QQBE77             | S66498             | C46518             | S08640             | S60455             | S33617             | A40807             | H75466             | XUBRVS             | D75524             | T00021             | 138344             | 539603             | H83943            | S40140             |
| ~                  | -                  | ~                  | N                  | ~                  | 7                  | 7                  | ~                  | 0                  | Н                  | 0                  | 7                  | Н                  | 7                  | 7                 | 7                  |
| 204                | 390                | 834                | 66                 | 124                | 287                | 289                | 303                | 364                | 442                | 910                | 3097               | 26926              | 351                | 999               | 835                |
| 6.0                | 5.9                | 5.9                | 5.9                | 5.9                | 5.<br>9.           | 5.9                | 5.9                | 5.9                | 5.9                | 5.9                | 5.<br>9.           | 5.9                | 5.8                | 5.8               | 5.8                |
| 78                 | 77.5               | 77.5               | 77                 | 77                 | 77                 | 77                 | 77                 | 77                 | 77                 | 77                 | 77                 | 77                 | 76.5               | 76.5              | 76.5               |
| 30                 | 31                 | 32                 | 33                 | 34                 | 35                 | 36                 | 37                 | 38                 | 39                 | 40                 | 41                 | 42                 | 43                 | 44                | 45                 |

### ALIGNMENTS

RESULT 1

| 100 11: 11: 12: 15: 15: 15: 15: 15: 15: 15: 15: 15: 15  | 564725<br>probable lipoprotein uxpA precursor - Pseudomonas putida<br>C;Species: Pseudomonas putida<br>C;Date: 06.Dec-1996 #sequence_revision 06-Dec-1996 #text_change 09-Jul-2004 | C;Accession: Set/Iz; St/Sbus<br>R;de Groot, A.; Krijger, J.J.; Filloux, A.; Tommassen, J.<br>Mol. Gen. Genet. 250, 491-504, 1996<br>A;fitle: Characterization of type II protein secretion (xcp) genes in the plant growth-<br>A;Reference number: S64724, MUID:96186881; PMID:8602167 | A;MOlecule type: DNA<br>A;Residues: 1-550 <deg><br/>A;Cross-references: UNIPROT:Q52289; EMBL:X81085; NID:g3293032; PIDN:CAA56977.1; PID:g52<br/>C;Genetics:<br/>A;Gene: uxpA<br/>F;1-29/Domain: signal sequence #status predicted <sig><br/>F;30-550/Product: probable lipoprotein uxpA #status predicted <mat></mat></sig></deg> | Query Match 7.9%; Score 103.5; DB 2; Length 550; Best Local Similarity 23.2%; Pred. No. 0.17; Matches 72; Conservative 42; Mismatches 118; Indels 79; Gaps 16; | 2 QTCPLAFPGHVSQA-LGTLLFLAASLSAQN-EGWDSPICTEGVVSVS 46 | 47 WGENTYMSCNISNAFSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQ 92 | 146 gdĖSGVOGSQLLGSEARVSSDERVLWPQRSAALYRQASATTLGAGLADEQRQALGLEPLQ 205 | 93 LQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAP 142<br>  :    : : | 143BIGEWPVPAVVTAVFILLVALVMFAWYRCRCSQQ 176 | 165 WLAERLPAIDLLLCARGQDLWPIPVQAIQASGRRVP-VLFAGCRGSGAFRLRCQQVAGQW 323 | 177 RREKKRYLLEPOMKVAALRAGAQGLGKASAELWIYDDEFIPKLLEPOMKVAALRAGAQGLGKASAELWIYDDEFIPKLLEPOMKVAALRAGAQGLGKASAELWIYDDEFIPK | 231 GALELLSPQPL 241 | 182 GSWDRLLHQAL 392 |
|---|--|--|---|--|--|--|--|---|---|--|--|---------------------|---------------------|
| probable lipoprotein Cispecies: Beeudomon Cispecies: Beeudomon Cispecies: Beeudomon Cispecies: Ge-Dec-1996 Cispecies: Ge-Dec-1996 Cispecies: Ge-Dec-1996 Cispecies: Ge-Dec-1996 A) Reference Commber: Cigenetics: A) Reference Commber: A) Reference Commber: A) Reference Commber: Cigenetics: A) Reference | S64725<br>probable lip<br>C,Species:<br>C,Date: 06-1   | C;Accession<br>R;de Groot,<br>Mol. Gen. G<br>A;Title: Ch:<br>A;Reference   | A, Molecule<br>A, Residues:<br>A, Cross-refi<br>C, Genetics:<br>A, Gene: uxpi<br>F, 1-29/Doma.  | Query Mate<br>Best Loca<br>Matches   |  |  |  |   |   |  |  |                     | 3£ qa               |

RESULT 2 T07167. probable isocitrate dehydrogenase (NAD) (EC 1.1.1.41) chain 1 - tomato C;Species: Lycopersicon esculentum (tomato)

```
unknown protein T10D10.14 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Accession: H96747
A;Authors: Hudies, B.; Hudzar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.
C;A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, ker, M.; Wu, D.; Yu, G.; Pavis, W.
A;Title: Sequence and analysis of chromosome I of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Residues: Dreliminary
A;Residues: 1-1088 <STO>
A;Cossiereferences: UNIPROT: Q9C9D7; GB:AE005173; NID:g6730762; PIDN:AAF27151.1; GSPDB:G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.Species: Nostoc sp. PCC 7120
A;Note: Nostoc sp. PCC 7120
A;Note: Nostoc sp. PCC 7120
A;Note: Nostoc sp. Strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
A;Note: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
C;Accession: Al2063
B;Ranako, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguch Rakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, DNA Res 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium An A; Reference number: AB1807; MUID:21595285; PMID:11759840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross_references: UNIPROT:Q8YVJ4; GB:BA000019; PIDN:BAB73682.1; PID:g17131073; GSPDB:
A;Experimental source: strain PCC 7120
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129 VTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREKKFFLLEPQ 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----DSEPTPRPLALVFKPSPL 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15 ALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLRAHG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 -QESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSH---AGLYMWHLVGHQRNNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     891 --LDQNRANLQRAAAMGNMGPPKLMPGMNNLYM-------NQQQQQQQQQQQQQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      936 ОООТОНОООТООРМЯ ОРЕООТАО ВРООООТООНЕ ОРОООООООТА В РООИ В РОИ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 6.9%; Score 90; DB 2; Length 108 Best Local Similarity 21.2%; Pred. No. 6.3; Matches 55; Conservative 46; Mismatches 93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   competence protein [imported] - Nostoc sp. (strain PCC 7120)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189 MKVAALRAGAQQGLSRASAEL-WTP------
               245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSPSAGITQQQLQQSSPQQM 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231 GA------DELLSPOPL 241
               228 GVKGVTASPL----PGPSGNVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-798 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: AI2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: T10D10.14
A;Map position: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Genetics:
               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 09-Jul-2004
C;Accession: TO7167
R;Tahlaoui, A.; Avrova, A.; Antoniw, J.F.
submitted to the EMBL Data Library, January 1998
A;Description: A putative mitochondrial isocitrate dehydrogenase from tomato roots up-re
A;Reference number: Z15974
A;Reference number: Z15974
A;Status: translated from GB/EMBL/DDBJ
A;Retaleus: translated from GB/EMBL/DDBJ
A;Residues: 1-393 «ANT>
A;Cross-references: UNIFORT: O82004; EMBL:Y16126; PIDN:CAA76076.1
A;Experimental source: cultivar Early Mech; root
C;Superimental source: cultivar Early Mech; root
C;Superimental sources: Oscopylmalate dehydrogenase
C;Keywords: oxidoreductase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Cross-references: UNIPROT: Q9S218; EMBL: AL109848; PIDN: CAB52846.1; GSPDB: GN00070; SCOED A, Experimental source: strain A3(2) C, Genetic G, Genetic C, Genetic C, Genetic C, Genetic C, Superfamily: hemolysin homolog yqxC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                probable membrane protein - Streptomyces coelicolor C; Species: Streptomyces coelicolor C; Species: Streptomyces coelicolor C; Species: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004 C; Accession: T36885 Streptomy, L.; Harris, D.; James, K.D.; Parkhill, J.; Barrell, B.G.; Rajandream, M.A. Submitted to the EMBL Data Library, August 1999 A; Reference number: Z21617 A; Reference number: Z21617 A; Status: preliminary; translated from GB/EMBL/DDBJ A; Molecule type: DNA A; Residues: 1-271 <MUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         φ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HVNIKLRAHGQESAIFNEVAPG----YFSRDGWQLQVQGGVAQLVIKGAR--DSHAGL-Y 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151 CFNLKGLPTRHENVDIVVIRENTEGEYSGLEHEVVPGVVESLKVMTKFCSERIAKYAFEY 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        112 AGLYMWHL-----VGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALV 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165 MFAWYRCRCSOORREKKFFLLEPOMKV------AALRAGAOOGLSRASAELWT 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GFWPVPAVVTAVF---ILLVALVMFAWYRCRCSQQRREKKFFLLEPQMKVAALRAGAQQG 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------PVDLVVGDLSFIPLALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
6.9%; Score 90.5; DB 2; Length 271;
Best Local Similarity 25.1%; Pred. No. 1.1;
Matches 51; Conservative 21; Mismatches 60; Indels 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match 7.2%; Score 94.5; DB 2; Local Similarity 23.8%; Pred. No. 0.76; les 51; Conservative 30; Mismatches 68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MWHLVGHORNNROVTL------EVSGAEPOSAP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSRASAELWTPDSEPTPRPLALVFKPSPLGALEL 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - SSTMRELWITVACNLYQSLSNLMLWSPLISTEI 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 YGOLAWSLRODERVTVKDRTNVRELTPEAIDGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGYFSRDGWQLQVQGGVAQ----LVIKGAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  212 PDSEPTPRPLALVFKPSPLGALE 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

g

g ò g ò g

ò

```
Risperimental Source: strain 9357

Risimpson, A.J.G., Reinard, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Briones, M.R.P.; Camardo, L.E.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, as-Neto, E.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, submitted to GenBank, June 2000

A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frol J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laic chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marcques, M.V.; Martins, A.M.P.; Martins, G.Y.; Frol J. J.D.; Vinnes, L.R.; Oliveira, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, A.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D. Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawas; Alathors: da Silva, A.C.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.M.; Silva Jr., W.A.; de Silva, A.M.; Silva Jr., W.A.; de J.D.; A;Reference number: A59328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: A82699
A;Anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequinature 406, 151-157, 2000
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MUID:20365717; PMID:10910347
A;Note: for a complete list of authors see reference number A59328 below
A;Accession: A82699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:Q9PDS5; GB:AE003963; GB:AE003849; NID:g9106285; PIDN:AAF84:

    Xylella fastidiosa (strain 9a5c)

                            11;
                                                                                                                              96 SLSSRGMRMAAQPRDRTIPDRIAFHPGYPEIKAFPFSTW-----ARLLKRHARYSHE 147
                                                                                                                                                                                          113 GLYMWHLV-GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFA---- 167
                                                                                                                                                                                                                                                                                                                                      -----RLAPG--ENDLYKLSVADNVAQAVASGRMSISQGHTALRRLDRELDRRS 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           129 VILEVSGAEPQSAPDIGFWPVP--AVVIAVFI-LLVALVMFAWYRCRCSQORREKKFFLL 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQ 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            131 KMMRVFGFGLAAGGVAGLWKLPWLDVATAATVGLLIGLL------TQYTDHRAATR 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----AQQGLSRASAELWTPDS 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            conserved hypothetical protein XF1304 [imported] - Xylella fastidiosa (stra:
C;Species: Xylella fastidiosa
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                             148 DLYGYHWVTGHPR-----LKAAIAEYLRA-SRGVECAPEQVIVVNGTQAALDILARMLV
                                                                                                                                                                                                                                                                                                    -----WYRCRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAEL------WTP
                                                                                60 AFSHVNIKLRAHGQESAIFNEVA--PGY----FSRDGWQLQVQGGVAQLVIKGARDSHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GHVSQAL-GTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTAORLEASLVALSQOLGLDCEPWSNP--TGIILSFSDPAKAIGSSDITRVI-----
                            Gaps
                            . 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 420;
                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                            65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.5%; Score 85.5; DB 2; ilarity 21.1%; Pred. No. 5.4; Conservative 36; Mismatches 110;
  d. No. 5.8;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           DSEPTPRPLALVFKPS---PLGAL 233
                                                                                                                                                                                                                                                                                                                                                                                                                                             EDETRPSPRLIFVTPSCOWPLGCL 263
     Pred
Similarity 26.0%; Pro 33; Conservative 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EPOMKVAALRAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 59; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-420 <SIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Contents: annotation
                         53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Gene: XF1304
                                                                                                                                                                                                                                                                                                    168
                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                           213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
  Best Loc
Matches
                                                                                à
                                                                                                                        a
                                                                                                                                                                                                                               DP
DP
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                               gg
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rhizopine catabolism (mocABRC) ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
A44048
genome polyprotein - Vilyuisk virus (strain V-1) (fragment)
c;Species: Vilyuisk virus
C;Date: 11-Feb-1993 #sequence_revision 11-Feb-1993 #text_change 07-Feb-1997
C;Accession: A44048
R;Pritchard, A.E.; Strom, T.; Lipton, H.L.
Virology 191, 469-472, 1992
A;Title: Nucleotide sequence identifies Vilyuisk virus as a divergent Theiler.'s virus.
A;Reference number: A44048; MUID:93033144; PMID:1413319
A;Recession: A44048
A;Molecule type: genomic RNA
A;Residues: 1-929 <PRI>A;Residues: 1-929 <PRI>Cross-references: GB:M94868
C;Superfamily: foot-and-mouth disease virus genome polyprotein
C;Keywords: polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                 658
                                                                                                                                                                                                                                                                                                    GFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREKKFFLLEPQMKVA---ALRAGAQQG 201
                                                                                                                                                                                                                                                                                                                                                                                                                FSHVNIKL--RAHGQESAIFN-EVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMW 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mocR protein - Rhizobium meliloti
C;Species: Rhizobium meliloti
C;Species: Rhizobium meliloti
C;Species: Saper: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S51574; S411be, D.A.; Rossbach, U.; de Bruijn, P.J.
Mol. Genet. 245, 11-24, 1994
A;Title: Molecular and genetic characterization of the rhizopine catabolism
A;Reference number: S51569; MuID:95147842; PMID:7845353
                                                                                                                                                          EGVVSVSWGENTVMSCNISNAFSHV-----NIKLRAHGQESAIFNEVAPGYFSRDGWQ
                                                                                                                                                                                                                                                                    LOVOGGVAOLVIKGARDSHAGLYMWHLVGHQRNNR-----QVTLEVSGAEPQSAP---DT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:P49309; EMBL:X78503; NID:g468758; PID:g468764
C;Genetics:
                                                                                                                                                                                                           OGVNQIDWAIATDFQRNNNDAWLEVLORLAIKNFYAYATNKENSLADQAIPQI---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23;
                                                                                                         54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 6.6%; Score 86.5; DB 2; Length 929; Best Local Similarity 27.0%; Pred. No. 11; Matches 27; Conservative 16; Mismatches 34; Indels 2:
                                                Length 798;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 493;
                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118 HL------VGHQRNNRQVTLEVSGAEPQSAPDTGF 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276 FLAPEFYTGTGVATSGQEPNKVFLMDTTWQEPQAAF-TGF 314
                                                                                                       33; Mismatches 73;
                                                6.8%; Score 89; DB 2; 21.6%; Pred. No. 5.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSRASAEL------WTPDSE 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSKTSTKVFVTAQDGAIQWMPNGE 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: nucleic acid sequence not shown A;Molecule type: DNA A;Residues: 1-493 <ROS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Superfamily: hypothetical protein b1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6.68;
                                                                                                       44; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  GGWPSPOVL----
                                                Query Match
Best Local Similarity
                                                                                                                                                       40
                                                                                                                                                                                                              909
                                                                                                                                                                                                                                                                    93
                                                                                                                                                                                                                                                                                                                           629
                                                                                                                                                                                                                                                                                                                                                                           145
                                                                                                                                                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
A; Gene: comE
                                                                                                       Matches
```

g ò g

ઠ

```
M.J.; E
K.; Lin
F;1065-1191/Product: protein 2B (core protein P2-5b) #status predicted <P2B>
F;1192-1517/Product: protein 2C (core protein P2-X) #status predicted <P2C>
F;1518-1665/Product: protein 3A (protein P3-1b) #status predicted <P3A>
F;1606-1625/Product: protein 3B (genome-linked protein P(Pg) #status predicted <P3B>
F;1608-1842/Product: protein 3C (probable proteinase) #status predicted <P3C>
F;1648-1842/Product: protein 3D (probable RNA-directed RNA polymerase) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Residues: 1-289 <STO>
A;Cross-references: UNIPROT:Q91617; GB:AE004468; GB:AE004091; NID:g9946144; PIDN:AAG036
A;Experimental source: strain PAO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic path A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: A83508
A;Accession: A83508
A;Status: preliminary
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  strain of Theiler's murine encer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Cross-references: UNIPROT:088595; EMBL:X56019; NID:962039; PIDN:CAA39496.1; PID:96204
C;Superfamily: foot-and-mouth disease virus genome polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polyamine transport protein PotI PA0304 [imported] - Pseudomonas aeruginosa (strain PAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P.; Hickey,
A.; Larbig,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60 AFSHVNIKLRAH---GQESAIFN-EVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLY 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60 AFSHVNIKLRAH --- GQESAIFN-EVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLY 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----HAGSL 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                genome polyprotein - murine poliovirus
C;Species: murine poliovirus, Theiler's encephalomyelitis virus
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----HAGSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C.Superfamily: spermidine/putrescine transport system permease protein pot1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: A83608
R;Stover, C:K.; Pham, X:Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, .; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2; Length 2303;
                                                                                                                                                                                                                                                                                                                                             DB 1; Length 2303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 289;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              223 AFSHIRIPL-PHVLAGEDGGVFGATLRRHYLCKTGWRVQVQCNASQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     223 AFSHIRIPL-PHVLAGEDGGVFGATLRRHYLCKTGWRVQVQCNASQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -GHORNNRQVTLEVSGAEPQSAPDTGF 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116 MWHLV------GHQRNNRQVTLEVSGAEPQSAPDIGF 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Accession: S13554
R;Law, K.M.; Brown, T.D.K.
Nucleic Acids Res. 18, 6707-6708, 1990
A;Title: The complete nucleotide sequence of the GDVII s
A;Reference number: S13554; MUID:91067481; PMID:2251141
A;Accession: S13554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
                                                                                                                                                                                                                                                                                                                                        6.5%; Score 85.5; D.larity 27.5%; Pred. No. 39; Conservative 16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.5%; Score 85.5; D
27.5%; Pred. No. 39;
tive 16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 84.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translation not shown A;Molecule type: mRNA A;Residues: 1-2303 <LAW>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 27.5%
hes 28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 28; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             116 MWHLV---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A, Gene: potI; PA0304
                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S13554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                      Glycoprotein gpl3 precursor - equine herpesvirus 1 (strain Kentucky A)

N.Alternate names: glycoprotein C
C;Species: equine herpesvirus 1 (strain Kentucky A)

C;Species: acquine herpesvirus domestic horse)

A;Note: host Equus caballus (domestic horse)
C;Date: 17-Feb-1994 #sequence_revision 17-Feb-1994 #text_change 09-Jul-2004

C;Accession: B46114

R;Matsumura, T: Smith, R.H.; O'Callaghan, D.J.

Nirology 193, 910-923, 1993

A;Title: DNA sequence and transcriptional analyses of the region of the equine herpesvir A;Reference number: A46114; MUID:93212524; PMID:8384760

A;Rocession: B46114

A;Molecule type: DNA

A;Residues: 1-468 cMAT>
A;Residues: 1-468 cMAT>
A;Residues: UNIPROT:PI2889; GB:S57839; NID:g298846; PIDN:AAB25944.1; PID:g298848

C;Superfamily: herpesvirus glycoprotein F
C;Keywords: glycoprotein; transmembrane prodicted cSTG>
F;130-408/Product: glycoprotein gpl3 #status predicted cFTNN>
F;432-451/Domain: transmembrane #status predicted cFTNN>
F;46,57,62,92,100,131,203,208,269/Binding site: carbohydrate (Asn) (covalent) #status pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome polyprotein - murine poliovirus (strain GDVII)

N; Contains: probable proteinase (EC 3.4.-.-); protein 1A; protein 1B; protein 1C; protein C; Species: murine poliovirus, Theiler's encephalomyelitis virus
C; Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_change 16-Jul-1999
C; Accession: A29193
R; Pevear, D.C.; Borkowski, J.; Calenoff, M.; Oh, C.K.; Ostrowski, B.; Lipton, H.L.
Virology 155, 1-12, 1988
A; Title: Insights into Theiler's virus neurovirulence based on a genomic comparison of A; Reference number: A29193; MUID:88265847; PMID:2838951
A; Reference number: A29193; MUID:88265847; PMID:2838951
A; Molecule type: genomic RNA
A; Residues: 1-2303 -REV>
A; Residues: 1-2303 -REV>
A; Residues: 1-2303 -REV>
A; Residues: 1-2303 -REV>
F; Tobordiue: protein; core protein; genome polyprotein
C; Superfamily: foot-and-mouth disease virus genome polyprotein; hydrolase; polyprotein; F; T-76/Domain: leader peptide #status predicted < LDP>
F; Tobordiuc: protein; Core protein; VP9) #status predicted < VP2>
F; Tobordiuc: protein 1D (coat protein VP9) #status predicted < VP2>
F; H48-414/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; Graphyeroduct: protein 1D (coat protein VP9) #status predicted < VP3>
F; H49-Pacduct: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-646/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-446/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP3>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP1>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP1>
F; H415-414/Product: protein 1D (coat protein VP9) #status predicted < VP1>
F; H415-414/Product: protein 1D (coat protein VP9) #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----QGGVA-QLVIKGARDSHAGLYMWHLV---GHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |: | | | | : : | | : : | | : : | | : : | | : : | | : : | | : : : | | : : : | | : : : | | : : : | : | | : : : | : | | : : : | | : : : | : | | : : : | : | : : | | : : : | : | : : | : | : : : | : | : : : | : | : : : | : | : : : | : | : : : | : | : : : | : | : : : | : | : : : | : | : : | : | : : : | : | : : | : | : : | : : | : | : | : : | : | : | : | : | : | : | : | : | : | : | : | : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----SRDG 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 QTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSP-----ICTEGVVSVSWGENTVMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1; Length 468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55 CNISNAFSHVNIKLRAHGQESAIFNEVAPG----YF-----
                                                                                                        241 ARLAGALTVVFKLT-VGALIAVSLCKLIGLKPQ1-YVAQP 278
                                                           ---ELLSPQPLFPYAADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
6.5%; Score 85.5; DE
Best Local Similarity 22.5%; Pred. No. 6.1;
Matches 42; Conservative 24; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91 WOLOV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        130 TLEVSGA 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TVSTYNA 219
                                                      215
                                                      ò
                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
A, Experimental source: strain 17
R, Georgopoulou, U.; Michaelidou, A.; Roizman, B.; Mavromara-Nazos, P.
U, Virol. 67, 3961-3968, 1993
A, Title: Identification of a new transcriptional unit that yields a gene product within A, Reference number: A45696; MUID:93287213; PMID:8389914
A, Accession: A45696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: DNA
A;Residues: 1-550 <MCG>
A;Cross-references: UNIPROT:P04488; GB:X02138; NID:g59865; PIDN:CAA26062.1; PID:g59882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ...
                                                                                                                                                                                                                                                                                  the short unique region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80 EVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMW-----HLVGH-----QR 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EPVPG-----LAWQAASVNLEFRDASPQHSGLYLCVVYVNDHIHAWGHITISTAAQY 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --TLEVSGAEPOSAPDTGFWPVPAVVTAVFILLVALVMFAWYR 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93 CTTSVGVNYSEYRLEIYLNQRTPFSGTPPGDEENYINHNATKDQTLLLFSTAERKKSRRG 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
                                                                               92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         **Note: sequence extracted from NCBI backbone (NCBIN:133646, NCBIP:133647)
C;Superfamily: herpesvirus glycoprotein E
C;Keywords: glycoprotein
F;124,243,501/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cispecies: human herpesvirus 1
Cibate: 17-Mar-1987 #sequence_revision 17-Mar-1987 #text_change 09-Jul-2004
CiAccession: A03733; A4566
RiMcGeoch, D.J.; Dolan, A.; Donald, S.; Rixon, F.J.
                                                           --- QGGVA-QLVIKGARDSHAGLYMWHLV---GHQRNNRQV
                          ---ICTEGVVSVSWGENTVMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       171 CRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSR-----ASAEL---WTPDSE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Status: preliminary
A,Molecule type: DNA
A,Residues: 438-550 <GEO>
A,Cross-references: GB:S62895; NID:g386127; PIDN:AAB27080.1; PID:g386128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.3%; Score 83; DB 1; Length 550; 25.4%; Pred. No. 12; [ve 16; Mismatches 62; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. MOI. Biol. 181, 1-13, 1985
A;Title: Sequence determination and genetic content of t
A;Reference number: A00656; MUID:85160822; PMID:2984429
                       QTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein PH0954 - Pyrococcus horikoshii
C;Species: Pyrococcus horikoshii
                                                                                                                                    CNISNAFSHVNIKLRAHGQESAIFNEVAPG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----PTPRPLALVFKPSPLGA-LELLSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VPWLAPPERP ---- DSPSTNGSGFEILSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glycoprotein E - human herpesvirus 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Experimental source: R35
                                                                                                                                                                                                                                                                                                                                                                                                                    TVSTYNA 219
                                                                                                                                                                                                                                                                                                                                                            130 TLEVSGA 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ::|
441 MTCWRRR----
                                                                                                                                                                                                                                                  91 WQLQV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 53; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N; Alternate names: US8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125 NNRQV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A03733
                                                                                                                                    55
                                                                                                                                                                                                                                                                                                                                                                                                                    213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E71086
                                                                                                                                                                              q
                                                                   유
                                                                                                                                 ò
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Residues: 1-468 (ALL)
A; Cross-references: UNIPROT: P12889; GB: M86664; NID: 9330791; PIDN: AAB02451.1; PID: 9330808
A; Cross-references: UNIPROT: P12889; GB: M86664; NID: 930791; PIDN: AAB02451.1; PID: 9330808
A; Cross-references: UNIPROT: P12889; GB: M86664; NID: 930791; PIDN: AAB02451.1; PID: 9330808
A; Note: the authors translated the codon ACA for residue 43 as Pro
R; Guo, P.; Goebel, S.; Davis, S.; Perkus, M.E.; Languet, B.; Desmettre, P.; Allen, G.; F
A; Virol. 63, 4189-4198, 1989
A; Title: Expression in recombinant vaccinia virus of the equine herpesvirus 1 gene encod
A; Reference number: A32980; MUID: 89382761; PMID: 2550665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ਸ਼ੁ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycoprotein gpl3 precursor - equine herpesvirus 1
NyAlternate names: glycoprotein gC
C;Species: equine herpesvirus 1
A;Note: host Equue caballus (domestic horse)
C;Date: 30-Jun-1989 #sequence revision 30-Jun-1989 #text_change 09-Jul-2004
C;Accession: A28149; A32980; H36796
E;Allen, G.P.; Coogle, L.D.
J. Virol. 62, 2850-2858, 1988
A;Title: Characterization of an equine herpesvirus type 1 gene encoding a glycoprotein A;Reference number: A28149; MUID:88275055; PMID:2455821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Superfamily: herpesvirus glycoprotein F
C;Keywords: glycoprotein; transmembrane protein
F;1-3-0/Domain: signal sequence #status predicted <SIG>
F;1-468/Product: glycoprotein gpl3 #status predicted <MAT>
F;46,57,62,92,100,131,203,208,269/Binding site: carbohydrate (Asn) (covalent) #status ]
                                                                                                                                                                                                                 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQ----LQVQGGVAQLVIKGARDSHAGLYMW 117
                                                                                                                                                                                                                                                                      147 SŚYVAVVVSARLRELDLSIEBAAMDLGAKPWKVFLLITIPMIAPSLAAGGMMSFA-LSLD 205
                                                                                                                                                                                                                                                                                                                               HLVGHQRNNRQVTLEVSG-----AEPQSAPDTGFWPVPAVVTAVFILLVAL-VMFAWY 169
                                                                                                                                                                                                                                                                                                                                                                  206 DLV-----LASFVSGPGSTTLPMEVFSAVRLGVKPEINAVASLILLSVSLFTFFAMY 257
                                                                                                       1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-468 <TEL>
A; Residues: 1-468 <TEL>
A; Cross-references: GB: M86664; NID: 9330791; PIDN: AAB02451.1; PID: 9330808
A; Experimental source: strain Ab4p
A; Telford, E.A.R.; Watson, M.S.; McBride, K.; Davison, A.J.
Virology 189, 304-316, 1992
A; Title: The DNA sequence of equine herpesvirus-1.
A; Reference number: A41831; MUID: 92295566; PMID: 1318606
A; Contents: annotation; possible protein-coding frames
A; Note: neither amino acid nor nucleotide sequence is given
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 17-0. 2000 A; A; Crossidues: 12-0. 2000 A; Cross-references: GB: MB6664; NID: 9330791; PIDN: AAB02451.1; PID: 9330808 B; Telford, E.A.R.; Watson, M.S.; McBride, K.; Davison, A.J. Bubmitted to Genbank, March 1992 A; Description: The DNA sequence of equine herpesvirus-1. A; Reference number: A38805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----RAIQQAMEETATD-WQKGS-PTP 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ch 6.4%; Score 83.5; DB 1; Length 468; 1 Similarity 22.5%; Pred. No. 9.3; 42; Conservative 23; Mismatches 69; Indels 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                            170 RCRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTP
                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69; Indels
                                                  91;
                          No. 4.3;
                                                     Mismatches
                          Pred.
26.2%; Pic
                                                  60; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FTROAEERR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 42; Conserv
                       Best Local Similarity
Matches 60; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Accession: A32980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: H36796
                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                 118
                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                   g
                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

the :

```
C; Date: 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 12-Jul-2004
C; Accession: E71086
R; Kawarabayaai, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Sekin M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi DNA Res. 5, S5-76, 1998
A; Title: Complete sequence and gene organization of the genome of a hyper-thermophilic a A; Reference number: A71000; MUID:98344137; PMID:9679194
A; Accession: E71086
A; Actus: preliminary; nucleic acid sequence not shown; translation not shown A; Residues: 1-4436 <Akm A; Residues: 1-4436 <Akm A; Residues: 1-4436 <Akm A; A; Residues: Lh436 <Akm A; Residues: Lh5 accession replaces an interim accession for a sequence replaced by GenBank C; Genetics: A; Gene: PH0954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | | : : | | : : | | : | | 300 DDPDLSNNLAEVGVWPGDYWVENASINNLIPGEFASINFKVRTTSKIPSAKVKLLRNGVE 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 SAI-----FNEVAPGYFSRDGWQLQVQGG--VAQLVIKGARDSHA------GLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360 EKIEYLSFYNGIAEGEIS---W--LVQGGNYTLALLVEGKGDINSSNNIYLLGNYNFPLP 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----HGQE 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 6.3%; Score 83; DB 2; Length 4436; Best Local Similarity 23.0%; Pred. No. 1.4e+02; Matches 37; Conservative 24; Mismatches 58; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34 DSPICTEGVVSVS-----WGENTVMSCNISNAFSHVNIKLRA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : | : | : | | : | 415 NPEVGNYSIDLPTCVDSTGEVRVNVTSTANWSIPVRLTLVY 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 GHORNNROVTL---EVSGAEPOSAPDTGFWPVPAVVTAVF 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

Search completed: October 17, 2005, 07:13:18 Job time : 55 secs

```
mus musculu
                                                                                                                                                                                                                                                                                                                                                               mus musculu
                                                                                                                                                                                                                                                                                                                                                                        pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                     homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                   pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                           nomo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                        homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chromobacte
homo sapien
                                                                                                                                                                                                                                                                                                          28wvn6 homo sapien
                                                                                                                                                                                                                                                                                                                                  rattus norv
                                                                                                                                                                                                                                                                                                                                          mus musculu
                                                                                                                                                                                                                                                                                                                                                mus musculu
                                                                                                                                                                                                                                                                                                                                                        musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                 mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                        lycopersico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        brachydanio
                                                                                                                                                                                                                                                                                                                           rattus norv
                                                                                                                                                                                                                                                                                                                                                                                     ralstonia s
caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     burkholderi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    streptomyce
                                                   (without alignments)
1049.551 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                               burkholderi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oryza sativ
                                                                                                                                                                                                                                                                                                                                                                                                                                  drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         burkholder
                                                                                                                                                                                                                                                                                                                                                                              bos taurus
                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                               1308
1 MQTCPLAFPGHVSQALGTLL......PLGALELLSPQPLFPYAADP 248
                                                                                                                                                                                                                                                                                              Description
                                           October 17, 2005, 06:04:49; Search time 121 Seconds
                                                                                                                                                                                                                                                                                                                                                                                            09bpn5
08nhn5
09v5£7
                                                                                                                                                                                                                                                                                                                                               09j159
Q9d966
                                                                                                                                                                                                                                                                                                                                                                     Q52289
046631
                                                                                                                                                                                                                                                                                                                                                                                                                 Q88p09
Q9h8b3
Q6nnx3
                                                                                                                                                                                                                                                                                                                                                                                                                                                080t91
082004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6p779
Q7nr05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q8yvj4
Q63ny8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08ryg9
0804r4
                                                                                                                                                                                                                                                                                                                                                                                    Q8xz99
                                                                                                                                                                                                                                                                                                                   2921w8
                                                                                                                                                                                                                                                                                                                                  26ays0
                                                                                                                                                                                                                                                                                                                                                               28ce38
                                                                                                                                                                                                                                                                                                                                                                                                                                        096kg6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q62as3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      263 ju4
                                                                                                                                                                                                                                                                                                                          26p781
                                                                                                                                          1612378
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                           1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                         SCTM_HUMAN
Q921W8
Q6P781
                                                                                                                                                                                                                                                                                                                                                             QBCE38
QBCE38
SHS1 BOVIN
QBXZ99
QBRN5
QBPN5
QBNNN5
QBP09
QBB09
QBB03
QBB03
QBB03
QBB03
QBB03
QBB03
                                                                                                                                                                                                                                                                                                                                               SCTM MOUSE
Q9D966
                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

                                                                                                                                                                                                                                                                                                                                Q6AYS0
Q8VDU7
                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                Q80T91
O82004
Q62AS3
Q63JU4
Q6P779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q7NR05
Q96AA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263NYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29C9D7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2804R4
                                                                                                                                                                                                           UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                     Query
Match Length DB
                                                                        US-10-080-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             864
1260
6620
271
1088
798
       Copyright
                                                                                                      BLOSUM62
                                                                               Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.5
94.5
94.5
91.5
91.5
90.5
88
88.5
                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                  96.5
                                                                                                                                                                                                                                                                                                                                                                                                                          96
                                                                                                                                                                                                                                                                                                                                                                                                    98
                                                                                                                                                                                                                                                                                                                                                                                                            97
                             protein
                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                           Searched:
                                                                                                                                                                                                            Database
                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                     Result
```

| Q90y50 brachydanio | Q8mjz5 pan troglod |        | Q82s18 nitrosomona | Q881s8 pseudomonas | Q87dx4 xylella fas | Q02472 theiler's e | P49309 rhizobium m | Q80zd5 rattus norv | Q9d2j4 mus musculu |        | Q9pds5 xylella fas |        |        |
|--------------------|--------------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------|--------------------|--------|--------|
| Q90Y50             | Q8MJZ5             | Q8BKK7 | Q82SL8             | OBBLSB .           | Q87DX4             | Q02472             | MOCR RHIME         | Q80ZDS             | Q9D2J4             | Q8MI84 | Q9PDS5             | Q8M185 | 088495 |
| 7                  | 7                  | ~      | 7                  | ~                  | 7                  | ~                  | Н                  | 7                  | 7                  | ~      | ~                  | ~      | 03     |
| 372                | 645                | 947    | 259                | 395                | 420                | 930                | 493                | 508                | 407                | 418    | 420                | 430    | 922    |
| 6.7                | 6.7                | 6.7    | 6.7                | 9.                 | 9.9                | 9.9                | 9.                 | 9.9                | 6.5                | 6.5    | 6.5                | 6.5    | 6.5    |
|                    |                    |        |                    |                    |                    | ın                 | 9                  | 98                 | ហ                  | 2      | S                  | 2      | Z.     |
| 87.5               | 87.5               | 87.5   | 87                 | 86.5               | 86.5               | 86.5               | 80                 | ω                  | 85.                | 85.    | 85.                | 85.    | 85.5   |

## ALIGNMENTS

```
MEDLINE=2238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
X Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninoi P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Muking M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Gfreen E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
and mouse CDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., SUBCELLULAR LOCATION, AND TISSUE SPECIFICITY.
MEDITIRE=984149980; PubMed=9440746; DOI=10.1006/geno.1997.5151;
Slentz-Kesler K.A., Hale L. P., Kaufman R.E.;
Identification and characterization of K12 (SECTM1), a novel human gene that encodes a Golgi-associated protein with transmembrane and genemics 47:327-340(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=20119303; PubMed=10652336; DOI=10.1074/jbc.275.5.3431; Lyman S.D., Escobar S., Rousseau A.-M., Armstrong A., Fanslow W.C.; "Identification of CD7 as a cognate of the human K12 (SECTM1)

    J. Biol. Chem. 275:3431-3437(2000).
    SUBUNIT: Interacts with CD7.
    SUBCELLULAR LOCATION: Type I membrane protein (Probable). Also

                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                             Secreted and transmembrane protein 1 precursor (Protein K12) Name=SECTM1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                  28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
                                             248 AA
                                             PRT;
                                             STANDARD;
                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERACTION WITH CD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                             SCIM HUMAN
SCTM_HUMAN
```

```
06P781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the Buropean Bloinformatics Institute. There are creatrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 GHORNNROVTLEVSGAEPOSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQORREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                    1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVWSCNISNA 60
         TISSUE SPECIFICITY: Detected at the highest levels in peripheral blood leukocytes and breast cancer cell lines. Found in leukocytes of the myeloid lineage, with the strongest expression observed in granulocytes and no detectable expression in lymphocytes.
                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                            Secreted and transmembrane protein 1.
Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                             Cytoplasmic (Potential).
Potential.
N-linked (GlcNAc. . .) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=FVB/N; TISSUE=Mammary tumor;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 248;
                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                  -> F (in Ref. 2).
21E3066B67920487 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 1.4e-107;
                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 1308; 1
100.0%; Pred. No. 1.4
:ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192 AA
                                                                                                                                                                                                                                                                                    Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                          EMBL; BC017716; AAH17716.1; -. Genew; HGNC:10707; SECTM1.
                                                                                                                                                                                                                                                                                                                                              27039 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0921W8;
01-DEC-2001 (TrEMBLrel. 19, C.
01-DEC-2001 (TrEMBLrel. 19, L.
01-OCT-2003 (TrEMBLrel. 25, L.
CDNA sequence BC010462.
                                                                                                                                                                                                                      InterPro; IPR007110; Ig-like.
Signal; Transmembrane.
                                                                                                                                                               EMBL; U77643; AAC52044.1; -.
                                                                                                                                                                                                                                                                                                                                                                                            Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                         55
56
191
                                                                                                                                                                                                  H-InvDB; HIX0014254; -.
 found as secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LFPYAADP 248
                                                                                                                                                                                                                                                                                                         38
56
191
191
248 AA;
                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10090;
                                                                                                                                                                                                              MIM; 602602; -
                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q921W8
                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
9921W8
1D 90221
AC 09211
DT 01-D
DT 01-D
DE CDNA
GN Name
OC EUKA
OC EUKA
OC EUKA
OC NCBI
REN [1]
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Alausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
An Brownstein M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
An Brownstein M.J., Usdin T.B., Toehiyuki S., Carninci P., Prange C.,
An Brownstein M.J., Wishin T.B., Toehiyuki S., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarane P.H.,
An Brownstein M.J., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Allalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Anting M., Madan A., Young A.C., Shevchanko Y., Bouffard G.G.,
Mhiting M., Madan A., Young A.C., Shevchanko Y., Bouffard G.G.,
Anting M., Actimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Andriguez A.C., Galimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Annes S.J., Marra M.J.,
Annes S.J., Marra M.A.,
Annes S.J., Marra M.A.,
And M. M. Ander M., Salska U., Smailus D.E., Schnerch A., Schein J.E.,
And M. M. Ander M.J., Schmutz J., Myers R.M., Butterfield Y.S.,
And M. M. Ander M.J., Salska U., Smailus D.E., Schnerch A., Schein J.E.,
And M. M. M. Ander M.J., Mallandysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 GHQRNNRQVTLEVSGAEPQS---APDTGFW------PVP-----AVVTAVFILL 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUB=Prostate;
MEDLINE=2238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE=2238825; Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heiseh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 29.2%; Score 382; DB 2; Length 192; Best Local Similarity 43.6%; Pred. No. 9.3e-26; Antches 85; Conservative 31; Mismatches 55; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=FVB/N; TISSUE=Mammary tumor;
Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; BC010462; AAH10462.1; -.
MGJ: MGI:2384805; BC010462.
SMART; SM0409; IG; 1.
SEQUENCE 192 AA; 21438 MW; 13D8989D3F07AE1F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein MGC72571.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 VA-LVMFAWYRCRCS 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10116;
```

```
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8VDU7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8VDU7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08VDU7
                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DDT TDD DDT TD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GHQRNNRQVTLEVSG------AEPQSAPDTGFWPVPAVVTAVFILLVALVMF 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MMVCWATYSGLFPRMLWALLLLAASLNAYNKEWDKPSCTVPEVSAKRGDRVVMACNISNT 60
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pubmedaliding.

Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Riausner R.D., Collins F.S., Wagner L. Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Dlatchenko L., Maruslana K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2; Length 218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
28.8%; Score 376.5; DB 2; Length 2
Best Local Similarity 41.9%; Pred. No. 3.3e-25;
Matches 90; Conservative 25; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strausberg R.;
Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical protein.
SEQUENCE 218 AA; 24276 MW; 672232FE73B7EE0E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            167 AWYRCRCSQORREKKFFLLEPOMKVAALRAGAQQG 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180 AWYKHRRSLKLRGYKF--OQIOTPVPGLSHGSPGG 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; BC061794; AAH61794.1; -
InterPro; IPR007110; Ig-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and mouse cDNA sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Prostate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6AYS0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
106AYS
10 06AY
AC 06AY
AC 06AY
DT 25-0
DT 25-
           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
```

ò

ò g ò δ

```
76 AIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSG 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REALINE-228CH II TISSUB-Mammary tumor;

REALING-CZECH II TISSUB-Mammary tumor;

REALING-CZECH II TISSUB-Mammary tumor;

REALING-CZECH II TISSUB-Mammary tumor;

REALING-CZECH II TISSUB-Mammary tumor;

RA STATUSPERGY R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.M., Schuler G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Diatchenko L., Modin T.B., Toshlyvuki S., Carninci P., Prange C.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Roas S., Worley K.C., Hale S., Garcia A.M., Gunaratne P.H.,

RA Chardes S., Worley K.C., Hale S., Garcia A.M., Gab L.J., Hulyk S.W.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RIZywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136 AEPQ------LVMFAWYRCRC 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74
Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16 LGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLRAHGQES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27.4%; Score 358; DB 2; Length 20
41.8%; Pred. No. 1.3e-23;
ive 25; Mismatches 61; Indels
                                                                                                                                                                                                                                                                                                                                                                                                       Director MGC/Project;
Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BC078937; AAH78937.1; -.
InterPro; IPR007110; Ig-11ke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein.
SEQUENCE 201 AA; 22762 MW; 790B959BA4839B98 CRC64;
                                                                                                                                                                                                                                        and mouse cDNA sequences."; Proc. Natl, Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           211 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 41.8%;
Marches 79; Conservative 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002 (TrEMBLrel. 20, 01-MAR-2002 (TrEMBLrel. 20, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  174 SQQRREKKF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 193 OKPHWVRRF
                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sectml protein.
                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Kidney;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=Sectm1;
```

```
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             996060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              996060
       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70 TSEKTSIIFNQTPPGNYSKDSWQLHIQGGQAQLVITDAQGKHSGEYWWKLRGLQAEFKNF 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TLEVSGAEPQSAPDTGFWPVP----AVVTAVFILLVA-----LVMFAWYRCRCSQQR 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 GLFPRMLWALLLLAASLNAYNHVWDKPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
A Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heibeh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heibeh F.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Bosak S.A., McDwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=20119303; PubMed=10652336; DOI=10.1074/jbc.275.5.3431; Lyman S.D., Escobar S., Rousseau A.-M., Armstrong A., Fanslow W.C.; "Identification of CD7 as a cognate of the human K12 (SECTM1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NCBI_TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2; Length 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                          Strausberg R.;
Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC020159; AAH20159.1; -.
MGD; MGI:11299083; Sectm1.
SMART; SM00409; IG; II.
SEQUENCE 211 AA; 23433 MW; 9E6FB436592BB2DB CRC64;
                                                                                                      Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.0%; Score 327.5; DB 2;
40.0%; Pred. No. 6.9e-21;
tive 24; Mismatches 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCTM MOUSE STANDARD, PRT; 212 AA. Q9JL59; 28-FEB-2003 (Rel. 41, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Secreted and transmembrane protein 1 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND INTERACTION WITH CD7.
                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-CZECH II; TISSUE-Mammary tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biol. Chem. 275:3431-3437(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---KQFPVAPQIQMS 193
                                                                       sednences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 78; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                       mouse cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=Sectml;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCTM_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HER TRANSPORTED TO THE TRANSPORTED TO THE TRANSPORTED TO THE TRANSPORTED TO THE TRANSPORTED THE TRANSPORTED TO THE TRANSPORTED 
RRAR RRATT REPORT OF THE REPOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130 NLTVNAADROKTEDLPVTKVPDKPPTAVRTEVIIIAIATTIIITGIGVFVWY----- 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.", Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
-!- SUBCELLULAR LOCATION: Type I membrane protein (Probable). Also found as secreted (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 GLFPRMLMALLLLAASLNAHNDVWDEPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130 TLEVSGAEPQSAPDTGFWPVP-----AVVTAVFILLVALVMFAWYRCRCSQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last unotation update)
Mus musculus 10 day old male pancreas cDNA, RIKEN full-length enriche library, clone:1810003C24 product:secreted and transmembrane 1, full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular (Potential).

Potential.
Cytoplasmic (Potential).
Potential.
N-linked (GLGNAC...) (Potential).
N-linked (GLGNAC...) (Potential).
N-linked (GLGNAC...) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Secreted and transmembrane protein 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24.9%; Score 326; DB 1; Length 21 37.8%; Pred. No. 9.4e-21; ive 25; Mismatches 73; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75113E877A2C5B87 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF210700; AAF30406.1; -. EMBL; BC010805; AAH10805.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23477 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003599; Ig.
InterPro; IPR007110; Ig-like.
SMART; SM00409; IG; 1.
Signal; Transmembrane.
SIGNNL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183 ----KOPPVAPOIOMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGD; MGI:1929083; Sectml.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 37.8
Matches 74; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        212
212
1160
1212
212
212
212
55
55
114
114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114 1
130 1
212 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 insert sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=Sectm1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OC OS OE OF OF OF OF OE
```

69 69

```
AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y., Muramatsu M., Hayashizaki Y., Itoh M., Wormalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA lbraries for rapid discovery of new genes."; Genome Res. 10:1617-1630(2000).
                                                                                                    GLFPRMLWALLLLAASINAYNHVWDKPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV
                                                                                                                                                                                                                                                                                                        130 TLEVSGAEPQSAPDTGFWPVP-----AVVTAVF1LLVALVMFAWYRCRCSQQ
                                       GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=C57BL/6J; TISSUE-Skin;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-WAR-2003 (TrEMBLrel. 23, Created)
01-WAR-2003 (TrEMBLrel. 23, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
Wans musculus 10 days neonate skin cDNA, RIKEN full-length enriched
library, clone:4732489423 product:secreted and transmembrane 1, full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=C57BL/6J; TISSUB=Skin;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Alzawa K., Nagaoka S., Sasaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Matahiki M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia; Eutheria; Rodentia, Sciurognathi; Muridae, Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=CS7BL/6J; TISSUE=Skin;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=CS7BL/6J; TISSUE=Skin;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         212 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | | : ||:::
----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=C57BL/6J; TISSUE=Skin;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEOUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=Sectm1;
                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8CE38;
Q8CE38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The FANTOM Consortium, the RIKEN Genome Exploration Research Group Phase I & II Team; the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; TISSUB=Pancreas; MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100; MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100; Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Murametsu M., Hayashizaki Y., Nurametsu M., Hayashizaki Y., Frono and subtraction of cap-trapper-selected cDNAs to prepare full-length CDNA libraries for rapid discovery of new genes."; Genome Res. 10:1617-1630(2000).
                                                            SEQUENCE FROM N.A.
STRAIN=CS7BL/6J; TISSUE=Pancreas;
MEDLINE=99279233; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
MHGh-efficiency 1013:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Adachi J. Alzawa K., Akahira S., Akimura T., Arai A., Aono H., Arakaninci S., Akimura T., Arai A., Aono H., Arakana S., Akimura T., Pukunishi Y., Puruno M., Arakawa T., Bono H., Carninci P., Fukuda S., Pukunishi Y., Furuno M., Imotani K., Ishii Y., Hayacau N., Hiramoto K., Hiraaka T., Hori F., Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M., Okazaki Y., Okido T., Okazaki Y., Okido T., Okazaki Y., Okido T., Okazaki K., Sakai K., Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T., Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T., Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshino M., Muramateu M., Hayashizaki Y., Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PERGINESTRICATION TO THE STREET OF THE STREET OF THE STREET OF STR
                                                                                                                                                                                                                                                                                                                                        STRAIN=CS7BL/6J; TISSUE=Pancreas;
MEDDINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RIKEN FANTOM CONSORTIUM;
"Functional annotation of a full-length mouse cDNA collection.";
Nature 409:685-690(2001):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.8%; Score 325; DB 2; Length 212; 37.8%; Pred. No. 1.2e-20; ive 25; Mismatches 73; Indels ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212 AA; 23559 MW; C8631ABFC724FE9E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0016021; C:integral to membrane; IEA.
InterPro; IPR003599; Ig.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=C57BL/6J; TISSUE=Pancreas;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AK007321; BAB24956.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; IPR007110; Ig-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MGI:1929083; Sectm1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00409; IG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
les 74; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

Best Loca Matches

φ

```
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHS1 BOVIN
                 S 2 2 2 8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30 TSKKTSIIFNKTPPGNYSKDSWQLHIQGGQAQLVITDAQGKHSGEYWWKLRGFQAEFKNF 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------AVVIAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLFPRMLWALLLLAASLNAYNHVWDKPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

C STRAIN-C57BL/6J; TISSUE=Skin;
Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
Adachi J., Aizawa K., Hanagaki T., Hara A., Hashizume W.,
A Huyashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
A Hori F., Imotani K., Ishii Y., Itoh M., Kagwa I., Kasuka T.,
Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
Kurihara C., Matsuyama T., Miyazaki A., Murata M., Okazaki Y.,
A Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
A Saito R., Saitoh H., Sakai C., Sakazume N., Saho H.,
Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
Agawa A., Tayawa A., Tayawa T., Yasunishi A., Muramatsu M., Hayashizaki Y.,
Indaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.,
Isubmitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.

EMBL, AK020082; BAC26284.1; — mamkynon. Ten
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ξ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; "RIEN integrated equence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              de Groot A., Krijger J.J., Filloux A., Tommassen J.;
fharacterization of type II protein secretion (xcp) genes in the
plant growth-etimulating Pseudomonas putida, strain WCS358.";
Mol. Gen. Genet. 250:491-504(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=96186881; PubMed=8602167; DOI=10.1007/s004380050102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           212 AA; 23559 MW; C863064DCE36EB7E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 324; DB 2;
Pred. No. 1.4e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO:0016021; C:integral to membrane; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130 TLEVSGAEPQSAPDTGFWPVP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003599; Ig.
InterPro; IPR007110; Ig-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----KOFPVAPÓIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24.8%;
37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01,
24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1996 (TrEMBLrel. 01,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
UxpA protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00409; IG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pseudomonas putida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ransmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=uxpA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q52289
Q52289;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
105289
105289
10 0528
AC 0522
AC 0522
DT 01-N
DT 01-N
DE NXPA
CO PSEU
OC PSEU
        RAHRET KARAKA KA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
93 LQVQGGVAQLVIKG----ARDSHAGLYMWH---LVGHQRNNRQVTLEVSGAEPQSAP-- 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 143 -----YRCRC----SQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      177 RREKKFF-----LLEPQMKVAALRAGAQGLSRASAELWTPDSEPTPR-PLALVFKPSPL 230
                                                                                                                                                                                                                                                                                                  90 QLAPLLDAGRADEANLGGYAVLGALLEQLRGEAGAGNSLTLENGQGWNG----SGLAYLT 145
                                                                                                                                                                                                                                                                                                                                                                                                   146 QĞESGVQGSQLLGSEARVSSDERVLWPQRSAALYRQASATTLGAGLADEQRQALGLEPLQ 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 265 WLAERLPAIDLLLCARGODLWPTPVOATOASGRRVP-VLFAGCRGSGAFRLRCOOVAGOW 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       324 QFEGRFFPTFEQTLSPAAQVRAGQLQAQLNQQRAGHAAWL--DQPLARAPQALWRRDTRG 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane. Supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. May play a key role in intracellular signaling during synaptogenesis and in synaptic function. Involved in the negative regulation of receptor tyrosine kinase-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., AND VARIANTS SER-23; ALA-28; LEU-61; ARG-70;
HIS-120; 125-GLN; 127-GLY; 129-HIS; 132-VAL; ASN-145; VAL-153;
ASP-203; ARG-261; LEU-302; LEU-316; ARG-337; ASN-367; LEU-422; PHE-429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brooke G.P., Parsons K.R., Howard C.J.,
"Cloning of two members of the SIRP alpha family of protein tyrosine
phosphatase binding proteins in cattle that are expressed on monocytes
and a subpopulation of dendritic cells and which mediate binding to
CD4 T cells."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eur. J. Immunol. 28:1-11(1998).
                                                                                                                                                                                                                                                   2 OTCPLAFPGHVSQA-LGTLLFLAA------SLSAQN-EGWDSPICTEGVVSVS
                                                                                                                                                                                                                                                                                                                                                   47 WGENTVMSCNISNAFSHVNIKLRA--HGQESAIFNEVAPGYFSR------DGWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein-tyrosine phosphatase non-receptor type substrate 1 precursor (SHP substrate-1) (SHRS-1) (Inhibitory receptor SHPS-1) (Signal-regulatory protein alpha-1) (Sirp-alpha-1) (MyD-1 antigen). Name=PTPNS1; Synonyms=MYD1, SHPS1, SIRP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=Friesian; TISSUE=Peripheral blood;
MEDLINE=98143722; PubMed=9485180;
DOI=10.1002/(SICI)1521-4141(199801)28:01<1::AID-IMMU1>3.3.CO;2-M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
                                                                                                                                                                                                 19;
                                                                                                                                                  Length 550;
                                                                                                                                                                                                    Indels
de Groot A.;
Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; X81085; CAA56977.1; -.
PIR; S64725; S64725.
SEQUENCE 550 AA; 59118 MW; 684D79D0D279868B CRC64;
                                                                                                                                                  DB 2;
                                                                                                                                                                                                 42; Mismatches 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SHSI_BOVIN STANDARD; PRT; 506 AA. 046511; 046632; 10-0CT-2003 (Rel. 42, Created) 10-0CT-2003 (Rel. 42, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                  7.9%; Score 103.5; 23.2%; Pred. No. 1.4
                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231 GALELLSPQPL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           382 GSWDRLLHQAL 392
                                                                                                                                                                         Local Similarity
tes 72; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bovinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AND GLU-433.
                                                                                                                                                     Query Match
```

. .) (Potential).

```
228 CEVA---HVTLQGGPPLRGTANLS---ETIRVPPTLEITGSPSAGNQVNVTCQVNKFYPR 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118 HLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVP-----AVVTAVFILLVALVMFAW 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---GOPAVSKNHŤLEVSA--POKDODTGOTPGPNDSNWTSIFIVVGVVCALLVALIAAL 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63 HVNIKLRAHG-----QESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMW 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
PROBABLE ALCOHOL DEHYDROGENASE-LIKE OXIDOREDUCTASE PROTEIN (EC 1.11.1.-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 CPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAF-S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Salanoubat M., Genin S., Artiguenave F., Gouzy J., Mangenot S., Arlat M., Billault A., Brottier P., Camus J.C., Cattolico L., Chandler M., Choisne N., Claudel-Renard C., Cunnac S., Demange N., Gaspin C., Lavie M., Moisan A., Robert C., Saurin W., Schiex T., Siguier P., Thebault P., Whalen M., Wincker P., Levy M., Weissenbach J., Boucher C.A.; "Genome sequence of the plant pathogen Ralstonia solanacearum."; Nature 415:497-502(2002).

Nature 415:497-502(2002).

-: COFACTOR: Zinc (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Raletonia solanacearum (Pseudomonas solanacearum).
Bacteria, Proteobacteria, Betaproteobacteria, Burkholderiales,
Burkholderiaceae, Ralstonia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=GM11000;
MEDLINE=21681879; PubMed=11823852; DOI=10.1038/415497a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
        (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.8%; Score 102.5; [27.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27.0%; Pred ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=RS03800; OrderedLocusNames=RSc1505;
          N-linked
                             N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last seq
01-MAR-2004 (TrEMBLrel. 26, Last ann
                                               N 4 1 K H O O H > Z > O K 1 1 1 K Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                   55093 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similair,
wrrhes 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
          169 YRCRCSQQR 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     392 YLLRIRONK 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                 506 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
        NCBI_TaxID=305;
                                                                                                                                                                                                                                                                                                                                                                                       VARIANT
VARIANT
VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                               VARIANT
VARIANT
VARIANT
VARIANT
                                                                                                                                                                                                        VARIANT
VARIANT
VARIANT
                                                                                                                                                                                                                                                                                     VARIANT
VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8XZ99
Q8XZ99;
                                                                                                                                               VARIANT
VARIANT
                                                                                                                                                                                       VARIANT
                                                                                                                                                                                                                                                                                                                                                 VARIANT
                                                                                                                                                                                                                                                                                                                                                                      VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08XZ99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DATO

          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D<sub>D</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
cellular responses induced by cell adhesion, growth factors or insulin. Mediates negative regulation of phagocytosis, mast cell activation and dendritic cell activation. CD47 binding prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells (By similarity).

-!- SUBUNIT: Binds PTPN11 when tyrosine-phosphorylated, except in macrophages, where it primarily binds PTPN6. Binds GRB2 in vitro. Binds JAK2 irrespective of its phosphorylation status and forms a stable complex. Binds SCAP1 and/or SCAP2. The resulting complex recruits FYB. Binds FGR and PTK2B (By similarity).
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- TISSUE SPECIFICITY: Highly expressed in spleen macrophages.
-!- PTM: Phosphorylated on tyrosine residues (By similarity).
-!- FTM: Phosphorylated on tyrosine residues (By similarity).
-!- SIMILARITY: Contains 1 immunoglobulin-like C1-type domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein-tyrosine phosphatase non-receptor type substrate 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PSS0835; IG_LIKE; 3.
PROSITE; PS00290; IG_MHC; FALSE NEC.
PROSITE; PS00290; IG_MHC; FALSE NEC.
PLycoprotein; Immunoglobulin domain; Phosphorylation; Polymorphism; Repeat; SH3-binding; Signal; Transmembrane.
SIGNAL.
SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Phosphotyrosine (by Tyr-kinases) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Phosphotyrosine (by Tyr-kinases)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phosphotyrosine (by Tyr-kinases)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phosphotyrosine (by Tyr-kinases)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GlcNAc. . .)
(GlcNAc. . .)
(GlcNAc. . .)
(GlcNAc. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GlcNAc...)
(GlcNAc...)
(GlcNAc...)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GlcNAc. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ig-like V-type.
Ig-like C1-type 1.
Ig-like C1-type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SH2-binding (SH3-binding (SH2-binding (SH2-b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; Y11045; CAA71942.1; --
EMBL; Y11046; CAA71943.1; --
HSSP; 088792; 1F97.
InterPro; IPR007110; Ig-like.
InterPro; IPR03597; Ig_c1.
InterPro; IPR03597; Ig_c1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00047; ig; 3. SMART; SM0407; IGc1; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3371
2865
3392
3346
3346
3331
4446
4456
4456
4456
4456
4456
4456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92
1167
204
2210
2246
2270
3311
344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92
204
204
204
204
205
205
311
311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30
3372
393
30
30
30
1148
255
255
273
432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     441
455
472
498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SITE
SITE
SITE
SITE
SITE
```

62

31; Gaps

82;

Length 506; Indels us-10-080-522-1.rup

```
542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Obscurin (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=OBSCN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q8NHN5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q8NHN5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OBNIHNS
          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCOCCOOC ON THE READ OF THE THE READ OF THE THE READ OF THE THE READ OF THE THE READ OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65 NIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGAR------DSHAG- 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99 -----RDÓENLCDRPRFIGY-TRD-----ĞGYÀEYTVCDARYCLPIPARYDDAHAAP 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          114 LYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRC 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      174 SQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSE-PTPRPL--ALVFKPSPL 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 PLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHV 64
                       EMBL; ALG46064; CAD15207.1; -.
HSSP; P75691; 1UUF.
GO; GO:0004024; F:allochol dehydrogenase activity, zinc-dependent; IEA.
GO; GO:0016491; F:coxidoreductase activity; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
PROSITE; PSO0059; ADH ZINC; UNKNOWN 1.
COMPLETE PSO0059; ADH ZINC; UNKNOWN 1.
COMPLETE PSO0059; Metal-binding; Oxidoreductase; Zinc.
SEQUENCE 334 AA; 35204 MW; 0F0176E32E8F3BA2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54 PALIPGH--EIVGTVDACGPGVSGLTTGE----RVGVPWLGWSCGTCPFCR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001 (TrEMBLrel. 17, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
10-MAR-2004 (TrEMBLrel. 26, Last annotation update)
10-OCT-2005 (TrEMBLrel. 26, Last annotation update)
10-OCT-2005 (TrEMBLR)
10-OCT-2005 (
                                                                                                                                                                                                                                                                                                                                                                                                                  94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wormbase Consortium;
Wormbase Consortium;
"Genome sequence of the nematode C. elegans: a platform for "moerinating biology. The C. elegans Sequencing Consortium.";
                                                                                                                                                                                                                                                                                                                                            Ouery Match 7.7%; Score 101; DB 2; Length 334; Best Local Similarity 24.6%; Pred. No. 1.3; Matches 67; Conservative 28; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Bristol N2;
WormBase Consortium;
Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The sequence of C. elegans cosmid Y32G9A.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      231 GALELLSPQ-------PLFPY 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 GÁLVPLALÓAVVKGGTVVCGGIHMSDIPAFPY 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=Bristol N2;
Bemis G., Courtney L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Waterston R.;
Submitted (NOV-2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09BPN5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
Q9BPN5
SXUXXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         347
                                                                                                                                                                                                                                                                                                                                                                                                                             180 POIVWYKDKFPLEIBGRVKFTAGVLSIEGAQEEDAGVYRCEA-----TNQFPVQIDGPE 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----RDGWQLQVQGGV----AQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAE 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248 HGAQVLDSAIY---SCRVGAEGQDFPVQVEEVAAKFCRLLEPVCGELGGTVTLACELSPA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116 MWHLVGHORNNR---QVTLEV-----SGAEPQSAPDTGFWPVPAVVTAVFILLVALVM 165
                                                                                                                                                                                                                                                                                                                                                                                               87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 HVSQALGTLLFLAASLSAQNEGWDSPICTEGV-----VSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 FSHV----NIKLRAHGOESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLY
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                           47;
                                                                                                                                                                                                                                                                                       DB 2; Length 304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2; Length 542;
                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    234 QHFAVKLDQELRIGDSYGWMLPLAILLILLLLFLVIFTCQRC 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         138 PQSA------PDTGFWPVPAVVTAVFILLVALVMFAWYRC 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Guttel M.S.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ314903; CAC85750.1; -.
InterPro; IPR007110; Ig-like.
InterPro; IPR003598; Ig_c2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Young P., Ehler E., Gautel M.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, AC087794; AAG53701.2; -. Wormbage; WaGene0021305; Y33C9A.8. WormPepp; Y3C9A.8. EE31101. InterPro; IPR007110; Ig-like. InterPro; IPR007110; Ig-like. InterPro; IPR0073598; Ig-c2. Ffam; PPF0047; ig; I. SMART; SM00408; IGc2; 1. SMART; SM00408; IGc2; 1. Hypochetical protein. SEQUENCE 304 AA; 34112 MW; AEF48BB42AODB012 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    542 AA; 58725 MW; F2F41C47CCF4F198 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                            49 ENTVMSCNISNAFSHVNIK----LRAHGQESAIFNEVAPGYFS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                        52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                    Query Match
7.5%; Score 98.5; DB
Best Local Similarity 22.1%; Pred. No. 1.9;
Matches 36; Conservative 28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
7.5%; Score 98; DB 2
Best Local Similarity 23.2%; Pred. No. 4.1;
Matches 60; Conservative 35; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              542 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00047; ig; 3.
SMART; SM00408; IGC2; 1.
PROSITE; PS50835; IG_LIKE; 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
```

```
01-JUN-2003
01-JUN-2003
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FlyBase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q88P09
Q88P09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FlyBase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q88P09
ID Q8
AC Q8
DT 01
DT 01
   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                        RECURDACE FORWAR NA.

REDELINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;

RADEMINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;

RADEMINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;

RADEMINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;

RADEMINE COINTER S.E., 16 PW, 16 PW, 1604 PM, 1616 PM, 18.

RADEMINE R.M. Bard N. Bardell M.D., Champe M., Pfelifer B.D.

RADEMINE, M. Bard M., Bardell M.D., Radrews-Pfannkoch C., Baldwin D.,

RADEW R.M., Bancs P.V., Berman B.P., Bardaria D., Bolchakov S.,

RADEWOR M., Bouck J., Barden B.P., Bardaria D., Bolchakov S.,

RADEMINE, CANLEY S., Dalnke C., Davenport L., Brottier P.,

RADEMINE, CANLEY S., Downes M., Dugan Rocha S., Punkov B.C., Dunn P.,

RADUDIN K.J., Douglo E., Downes M., Dugan Rocha S., Punkov B.C., Dunn P.,

RADUDIN K.J., Douglo E., Downes M., Dugan Rocha S., Plaischmann W.,

RADUDIN K.J., Bangelista C.C., Ferraz C., Rennison J.R., Retchum K.A.,

RADUDIN K.J., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,

RADUDIN K.J., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,

RADUDIN K.J., Martei B., McIntoon T.J., Wei M.H., I Degwam C.,

Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,

RADUDIN K.J., Martei B., McIntoon T.C., Morris J., Moshrefi A.,

RADUN K.R., Mattei B., McIntoon T.C., Morris J., Moshrefi A.,

RADUN K.R., Nalson K.A., Miyon W., Nurshern D.M., Nelson D.L.,

RADUR S.R., Reinington K.A., Miyon K., Murshy L., Murny D.M., Nelson D.L.,

RADUR S.R., Reinington K., Stunders R.D., Stunds M., Strong R., Sun R.,

Spier E., Spradling A.C., Stunders R.D., Yang S., Yao Q.A., Ye J.,

RADUR S.M., Woodager, Worley K.C., Wu D., Yang S., Zhu X., Smith H.O.,

RADUR S.M., Woodager, Worley K.C., Wu D., Yang S., Zhu X., Smith H.O.,

RADUR S.M., Woodager, Worley K.C., Wu D., Yang S., Zhu X., Smith H.O.,

RADUR S.M., Woodager, Worley K.C., Worley C., School R., Siden-Kiamos L., Shon W., Zhong W., Zhon W., Zhong W., Zhon R., School R., Shon R., Worley K.C., Woodager, Wolly B., Sch
                                                              447
 ----VCESRDDHTSAQLTVSVPRVVKFMSGLSTVVAEEGGEATFQCVVSPSDVAVV--- 399
                              FAWYRCRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAEL-----WTPDSEPTPRP
                                                            --WFRDGA------LLQPSEKFAISQSGASHSLTISDLVLEDAGQITVEAEGASSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22426065; PubMed=12537568;
Celniker S.E., Wheeler D.A., Kronmiller B., Carlson J.W., Halpern A., Patel S., Adans M., Champe M., Dugan S.P., Frise E., Hodgson A., George R.A., Hoskins R.A., Laverty T., Muzny D.M., Nelson C.R., Pacleb J.M., Park S., Pfeiffer B.D., Richards S., Sodergren E.J.,
                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa, Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                     Ź
                                                                                                                                                                                                 894
                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                          Drosophila melanogaster (Fruit fly)
                                                                                                                                                                                                 PRT;
                                                                                         LALVFKPSPLGALELLSPQ 239
                                                                                                                      448 AALRVREAPVLFKKKLEPQ 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Science 287:2185-2195(2000).
                                                                                                                                                                                                                                13,
22,
23,
                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                 01-MAR-2003 (TrEMBLrel. CG2292-PA.
                                                                                                                                                                                                                              (TrEMBLrel.
                                                                                                                                                                                                                                              (TrEMBLre]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                          ORFNames=CG2292;
                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=7227;
                                                                                                                                                                                                                              01-MAY-2000
                                                                                                                                                                                                                                              01-OCT-2002
348
                              166
                                                            400
                                                                                         221
                                                         g
                                                                                                                                                                                                 ò
                                                                                        ઠે
```

```
15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63 HVN----IKLRAHGQESAIFNEVAPGY--FSRDGWQLQVQGGVAQLVIKGARDSHAGLYM 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ...---- 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                   Kaminker J.S., Bergman C.M., Kronmiller B., Carlson J., Svirskas R., Patel S., Frise E., Wheeler D.A., Lewis S.E., Rubin G.M., Ashburner M., Celniker S.E.; "The transposable elements of the Drosophila melanogaster euchromatin:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 146 HVSNGGEINLRFYNHDL----DFSPGYDAYEEDEWVFKRVKLLLQQKREALQRAQNVVFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            117 WHLVGHORNNROVTLEVSG-AEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           226 EKTEKGVYAIYQEFERVFPDKRTAYLLT-ADHGMTDSGAHGSGSPHETDTPFMLWGAGAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 PGHVSQALGTLLFLAASLSAQNEGWDS-PICTEGVVSVS----WGENTVMSCNISNAFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORREK-----KFFLLEPOMKVAALRAGAQOGLSRASAE------LW-TPDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=22426069; PubMed=12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P.,
Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
Svirskas R., Tabor P.E., Wan K., Stapleton M., Sutton G.G., Vent Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M.; "Finishing a Wole-genome shotgun: Release 3 of the Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Annotation of the Drosophila melanogaster euchromatic genome:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 894;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101828 MW; 9BD68206E9595187 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           202 LHLLG-----LDTAGHVHKPGAP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88;
                                                                                                                                                                                                                                                                                                                                                                a genomics perspective.";
Genome Biol. 3:RESEARCH0084-RESEARCH0084 (2002).
                                                                                          melanogaster euchromatic genome sequence.";
Genome Biol. 3:RESEARCH0079-RESEARCH0079(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       systematic review.";
Genome Biol. 3:RESEARCH0083-RESEARCH0083(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EPTPRPLALVFKPS-----PLGALELLSPQPL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1:| || || 285 RAVPKPGGRTFMPNNEGPAMPLHELEQAQLTPL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           550 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.4%; Score 97;
22.7%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                              MEDLINE=22426070; PubMed=12537573;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, AE003831; AAF58853.2; -
FlyBase; FBgn0033479; CG2292.
InterPro; IPR007070; PigN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel. 24, C
(TrEMBLrel. 24, I
(TrEMBLrel. 24, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 22.7%
hes 62, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF04987; PigN;
SEQUENCE 894 AA; 1
                                                                                                                                                                                                                                                                                                                                                                                                                        [4]
SEQUENCE FROM N.A.
                                                                                                                                                        [3]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
```

```
||:| : : | : | : | 199
|-----LGIEARVSSDERVLWPQRSTGLYRQASAITLGAGLADAQRQAL 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92 QLQV----QGGVAQLVIKG----ARDSHAGLYMWH---LVGHQRNNRQVTLEVSGAEPQ 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200 GVQALHVFERGGARIAVVGVTDPYAQDQKASLKQWYQSLLPVFEQARHBADLVVAMADAG 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             140 SAP-----YRCRC-- 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      174 --SQORREKKFF-----LLEP--QMKVAAL-----RAG----AQQGLSRASAELWTPD 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        319 VAGGWQFDGRFFFPAFEQQLAPAAQLRVAQLQAQLRQQRAGHAAWLDQPLARAPQALWRRD 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 QTCPLAFPGHVSQA-LGTLLFLAA------SLSAQN-EGWDSPICTEGVVSVS 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47 WGENTVMSCNISNAFSHVNIKLRAHGQESAIFNEVAPGYF-----SRDGW 91
                                                                                                                    MEDLINE-2242/3060, PubMed=12534463;
MEDLINE-2242/3060, PubMed=12534463;
Melon K.E., Weinel C., Pauleen I.T., Dodson R.J., Hilbert H.,
Martins dos Santos V.A.P., Pouts D.E., Gill S.R., Pop M., Holmes M.,
Brinkac L.M., Beanan M.J., DeBoy R.T., Daugherty S.C., Kolonay J.F.,
Madugu R., Melson W.C., White O., Peterson J.D., Khouri H.M.,
Hance I., Chris Lee P., Hollzapple E.K., Scanlan D., Tran K.,
Moazzez A., Utterback T.R., Rizzo M., Lee K., Kosack D., Moestl D.,
Wedler H., Lauber J., Stjepandic D., Hoheisel J., Straetz M., Heim S.,
Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96; Indels 99; Gaps
Lipoprotein UxpA.

Name=uxpA; OrderedLocusNames=PP1044;
Pseudomonas putida (strain KT2440).

Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.4%; Score 96.5; DB 2; Length 550; 22.3%; Pred. No. 5.7; tive 39; Mismatches 96; Indels 99
                                                                                                                                                                                                                                                                                                                              "Complete genome sequence and comparative analysis of the metabolically versatile Pseudomonas putida KT2440."; Environ. Microbiol. 4:799-808(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                        Complete proteome; Lipoprotein.
SEQUENCE 550 AA; 59383 MW; 55750860D219EB2C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 22.3*
Matches 67; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        FIGR; PP1044; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           379 T 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Оp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

Search completed: October 17, 2005, 07:15:33 Job time : 127 secs

Ų

```
October 17, 2005, 06:04:49; Search time 122 Seconds (without alignments) 786.201 Million cell updates/sec
                                                                                                                                                                                      US-10-080-522-1
1308
1 MQTCPLAFPGHVSQALGTLL......PLGALELLSPQPLFPXAADP 248
                                                                                                                                                                                                                                                                                                                                                                         2105692
  5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                              2105692 seqs, 386760381 residues
GenCore version
Copyright (c) 1993 - 2005
                                                                         OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                   BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                             Run on:
```

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

seq length: 0 seq length: 200000000

Minimum DB Maximum DB

A\_Geneseq\_16Dec04:\*
1: geneseqp1980s:\*
2: geneseqp1990s:\*
4: geneseqp2001s:\*
5: geneseqp2001s:\*
6: geneseqp2003s:\*
6: geneseqp2003ss:\*
7: geneseqp2003bs:\*
8: geneseqp2003bs:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

STIMMADIES

|               |       | de    |        |    | SUMMAKIES |                    |
|---------------|-------|-------|--------|----|-----------|--------------------|
| Result<br>No. | Score | Query | Length | DB | ID        | iption             |
| -             | 1308  | 100.0 | 248    | ~  | AAW48811  |                    |
| 7             | 1308  | -     | 248    | 7  | AAY21846  | ಹ                  |
| М             | 1308  | -     | 248    | 4  | AAB36658  | Human              |
| 4             | 1308  |       | 248    | æ  | ADJ75366  | Adj75366 Marker qe |
| S             | 1308  | 100.0 | 248    | œ  | ADP24664  | 64 PRO pol         |
| 9             | 916.5 | 70.1  | 183    | 9  | AA029897  | _                  |
| 7             | 720.5 |       | 149    | 7  | ADB36336  | Adb36336 Human imm |
| 89            | 719.5 | 55.0  | 162    | 9  | AA029896  | Aao29896 Human org |
| σ             | 492   | 37.6  | 101    | 9  | AA029895  | Aao29895 Human org |
| 10            | 326   | 24.9  | 212    | 4  | AAB36660  | 0 Mouse            |
| 11            | 326   | 24.9  | 212    | 8  | ADJ76167  | Adj76167 Marker ge |
| 12            | 325   | 24.8  | 212    | 8  | ADJ76168  | 3 Marker           |
|               | 294   | 22.5  | 107    | 9  | AA029898  | 8 Human c          |
|               | 286   | 21.9  | 55     | ٣  | AAB34671  | Aab34671 Gene 35 h |
| 15            | 279   | 21.3  | 55     | m  | AAB34672  | Aab34672 Human sec |
| 16            | 163   | 12.5  | 30     | ო  | AAB34673  | Aab34673 Gene 35 h |
| 17            | 156   | 11.9  | 43     | 7  | ADB36337  | Adb36337 Human imm |
| 18            |       | 7.6   | 874    | 4  | ABB59013  | Abb59013 Drosophil |
| 19            | 96    | 7.3   | 435    | 9  | ABR41273  | Abr41273 Human DIT |
| 20            | 96    | 7.3   | 442    | 4  | AAB95569  | Aab95569 Human pro |
| 21            | 95.5  | ٠:    | 206    | Ŋ  | AD116910  | O COW NC           |
| 22            | 91    | 7.0   | 6620   | 7  | ADJ70485  | Adj70485 Human hea |
| 23            | 91    | ٦.    | 7968   | 9  | ABG76187  | Abg76187 Human ser |
| 24            | 90.5  | 6.9   | 1171   | 7  | ABO63781  | н                  |
| 25            | 83    | 6.8   | 435    | 4  | AAB61190  | Aab61190 Mature hu |

| Secret<br>Human<br>Human<br>Human<br>Secret<br>Human<br>Novel<br>Protei<br>Protei<br>Protei<br>Protei<br>Protei<br>Human  | Human<br>Novel<br>Human   | Appesez/ Human pol |
|---|---|--------------------|
| AB032633<br>ADB90720<br>ADB90720<br>ADQ10281<br>AAB032631<br>AB032631<br>ADQ10279<br>ADQ10279<br>ADW10571<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427<br>AAR12427   | ADM83615<br>ADM83615<br>ADM67749<br>ABMS8656  | ABF69621           |
| 0 C C 8 4 0 C C 8 8 0 0 C C 8 8 0   | 0 00 00 0   | n                  |
| 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4   | 444<br>1161<br>1482   | 1421               |
| $\begin{matrix} 0 & 0 $ | 0 00 00 00 0<br>0 4 4 4 4   | r.<br>0            |
| 88888888888888888888888888888888888888  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | r                  |
| 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 1 4 4 4 4<br>1 6 6 7 9 9  | 'n                 |

## ALIGNMENTS

DNA probe; CD7 HS1 DNase hypersensitive site; mRNA northern blot; human erythroleukemic; HEL; K562 cell line; clone; breast cancer; ovarian cancer; malignant; tumour. /note= "encoded by CCAA" Location/Qualifiers Ą AAW48811 standard; protein; 248 Kaufman RE, Slentz-Kesler KA; 97WO-US021517. 96US-00755559. (first entry) WPI; 1998-312415/27. N-PSDB; AAV32446. Misc-difference 239 (UYDU-) UNIV DUKE. Homo sapiens. 24-NOV-1997; 22-NOV-1996; WO9822502-A1 26-OCT-1998 K12 protein. 28-MAY-1998 AAW48811; RESULT 1 AAW48811 THE STATE OF THE S

New isolated K12 protein gene - which is over expressed in certain neoplastic cells, used to develop products for tumour detection and treatment.

# Claim 3; Fig 1; 44pp; English.

This present sequence represents the KI2 protein, the gene for which has been located on chromosome 17q25. To obtain this genes CDNA sequence a 500 bp mAx probe, which can be located just upstream of the CD7 HS1 DNase hypersensitive site, was used against a mRNA northern blot. From this a 18Ab transcript was detected in the human erythroleukemic cell line HEL. The probe was then used to screen a human erythroleukemic cell line HEL. The probe was then used to screen a human erythroleukemic cell line KS62 cDNA library, from which several clones were identified and isolated that

```
ö
constituted a 1.8kb cDNA. This cDNA was designated K12 and was found to have a single open reading frame as well as being in the same orientation as CD7. The K12 gene was found to be expressed in both breast and ovarian cancer cells at a much higher level than any other malignant or normal tissue that was examined, thus enabling the K12 to be a useful protein in
                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                  GHQRINNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Signal-peptide containing protein; SIGP; human; cancer; immune response; adenocarcinoma; leukemia; lymphoma; melanoma; myeloma; sarcoma; AIDS; Addison's disease; adult respiratory distress syndrome; allergy; anemia; aschma; atherosclerosis; bronchitis; disconstitus; Crohn's disease; ulcerative colitis; atopic dermatitis; dermatcomyositis; emphysema; diabetes mellitus; atrophic gastritis; glomerulonephritis; gout; trauma; Grave's Disease; hypereosinophilia; irritable bowel syndrome; infection; lupus erythematosus; multiple sclerosis; myasthenia gravis; inflammation; osteoarthritis; osteoporosis; pancreatitis; polymyositis; scleroderma; rheumatoid arthritis; Sjogren's syndrome; autoimmune thyroditis
                                                                                                                                                                                                        9
                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                          MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                         FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV
                                                                                                                                                                                                                                                                                                                                                 1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                    FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV
                                                                                                                                                                                                                                                                                                                                                                                               KFFLLEPOMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human signal peptide-contianing protein (SIGP) (clone ID 1747327).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sather
                                                                                                                                                                         .;
0
                                                                                                                                             Length 248;
                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baughn MR,
                                                                                                                                           Score 1308; DB 2;
Pred. No. 1.8e-133;
                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Guegler KJ,
                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY21846 standard; protein; 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Corley NC,
                                                                                                                                                                         ö
                                                                               tumour detection and treatment
                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US027598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (INCY-) INCYTE PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-430242/36.
N-PSDB; AAX82081.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hillman JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LFPYAADP
                                                                                                            Sequence 248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-JUL-1999
                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lal P,
Shah P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY21846
   88888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                            а
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
The invention provides human signal-peptide containing proteins (SIGP)

(AAY21841-855) and polynucleotides (AAX82076-90) encoding the proteins. A host cell contending a vector comprising SIGP DNA can be used to produce the SIGP protein. The SIGP protein can be used in conjuncture with a conformation of the signal protein can be used to treat or prevent a cancer or an immune response. The cancers that can be treated or prevented include sarcomas, adenocarcinomas, leukemia's, lymphomas, melanomas, teratocarcinomas, conjourness and cancers of the adrenal gland, bladder, bone, bone marrow, brain, breast, cervix, gall bladder, ganglia, gastrointestinal tract, convert, kidney, liver, lung, muscle, ovary, pancreas, parathyroid, penis, prostate, salivary glands, skin, spleen, testis, thymus, thyroid, and uterus. The immune responses that can be treated or prevented include, conterus, activated statis, collis, atopic dermaticis, dermatomyositis, diabetes anemia, asthma, atherosclerosis, bronchitis, cholecystitus, Crohn's canemia, asthma, atherosclerosis, bronchitis, cholecystitus, Grave's disease, gout, hypereosinophilia, irritable bowel syndrome, lupus cervithematosus, multiple sclerosis, myasthenia gravis, myocardial or pericardial inflammation, osteoarthritis, osteoaporosis, pancreatitis, polymyoshtis, rheumatoid arthritis, scleroderma, Siggren's syndrome, and trauma cutoimmune thyroditis, complications of cancer, infections, and trauma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; CD7; K12; cognate ligand; cluster of differentiation; cancer; identification; inhibiting T cell proliferation; HIV; infection; activating natural killer cell proliferation; leukaemia, lymphoma; sepsis; graft versus host disease, autoimmune disease; arthritis; multiple sclerosis; rheumatoid arthritis; psoriatic arthritis; lupus; scleroderma; psoriasis; atopic dermatitis; type I diabetes mellitus; Hashimoto's thyroiditis; pernicious annewna; Addison's disease; uveitis; myasthenia gravis; psoriasis; Guillain-Barre Syndrome; Grave's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GHORNNROVTLEVSGAEPOSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQORREK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
signal-peptide containing protein coding sequences used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 1.8e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1308; DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human K12 protein sequence SEQ ID NO:4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB36658 standard; protein; 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08;
                 cancer and immune responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB36658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB36658
ID AAB3
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
systemic lupus erythematosus; dermatomyositis; asthma; eczema, atopical dermatitis; contact dermatitis; eczematous dematitide; seborrhoeic dermatitis; rhinitis.
                                                                                                                                                                                                      WO200073333-A2
                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                          07-DEC-2000
```

99US-0136450P (IMMV ) IMMUNEX CORP. 28-MAY-1999;

26-MAY-2000; 2000WO-US014612

Fanslow WC; Lyman SD,

2001-061511/07. N-PSDB; AAC88152. Stimulating intracellular signaling of CD7 comprises contacting a cell expressing CD7 with recombinant K12 protein, the cognate ligand of CD7 to inhibit T cell proliferation and/or activate natural killer cell proliferation.

Claim 2; Page 38-39; 42pp; English

The present invention describes a method for stimulating (S) the intracellular signalling of CD (cluster of differentiation) 7 comprising contacting a cell that expresses CD7 with a recombinant K12 protein (I), the cognate ligand of CD7. (S) is useful for inhibiting T cell and/or activating NK (matural killer) cell proliferation and/or activating NK (matural killer) cell proliferation of K12 protein. It is also used for treating HIV-1 infection, cancer (T cell leukaemia, acute lymphomic leukaemia, cutaneous T cell lymphoma), bacterial and viral infections, mediated by CD7. In the case of treating T cell leukaemia the soluble K12 protein is covalently attached to a covin. A disease mediated by CD7 such as sepsis, graft versus host disease undities contacted to a tribitie, protein, autoimmune diseases, multiple sclerosis, attrities, rheumatoid arthitis, psoriatic arthritis, acleroderma, lupus, psoriasis, atopic dermatitie, psoriasis, disease, systemic lupus erythematosus and dermatomyositis, asthma, eczema, atopical dermatitis, contact dermatitis, other eczematous dematitides, seborrhocic dermatitis, and rhinitis salso treated by administering a K12 antagonist (neutralising antibody). The present invention 

Sequence 248 AA;

```
ö
                                                       9
                                                       1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                            Gaps
                            .;
0
  DB 4; Length 248;
                            Indels
                             ;
0
100.0%; Score 1308; DB 4;
100.0%; Pred. No. 1.8e-133;
ive 0; Mismatches 0;
                          248; Conservative
              Similarity
 Query Match
Best Local S
                            Matches
                                                       ઠે
```

- 1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 61
- GHORNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180 GHQRINNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVF1LLVALVMFAWYRCRCSQQRREK 180 121 121

61

a ò

ð

g ò 염

181 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP

LFPYAADP 248 241 LFPYAADP 248 g ADJ75366 standard; protein; 248

Æ.

ADJ75366;

20-MAY-2004 (first entry)

Marker gene related amino acid sequence SEQ ID NO:618.

bronchial asthma; chronic obstructive pulmonary disease; respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic; gene therapy; marker.

Homo sapiens

EP1394274-A2

03-MAR-2004.

04-AUG-2003; 2003EP-00254857,

06-AUG-2002; 2002JP-00229312. 20-MAR-2003; 2003JP-00077212.

(GENO-) GENOX RES INC

Izuhara K; ĭ Nagai Ή, Kubo Yamaya M, Ohtani N, Sugita Y,

WPI; 2004-193155/19.

þλ Testing for bronchial asthma or chronic obstructive pulmonary disease by comparing the expression level of a marker gene in a biological sample from a subject with the expression level of the gene in a sample from a healthy subject.

Example 11; SEQ ID NO 618; 241pp; English.

The present invention describes a method of testing for bronchial asthma or chronic obstructive pulmonary disease. The method comprises or chronic obstructive pulmonary disease. The method comprises correction a subject, comparing the expression level of a marker gene in a biological sample from a subject, comparing the expression level of the marker gene in a biological sample from a healthy constructive pulmonary disease. The marker gene comprises: (a) a group of genes (51) whose expression levels increase when respiratory epithelial colls are stimulated with interleukin-13; or (b) a group of genes (52) whose expression levels increase when respiratory epithelial cells are stimulated with interleukin-13. Also described: (1) a reagent (1) for certificated with interleukin-13. Also described: (1) a reagent (1) for certificated with interleukin-13 as of chronic obstructive pulmonary disease; (2) a kit for screening for a candidate compound for a therapeutic agent to treat bronchial asthma or chronic obstructive pulmonary disease; (3) a marker gene or an inducer that induces bronchial asthma or chronic obstructive pulmonary disease; (5) a marker gene or an antisense nucleic acid corresponding to a portion of the marker gene or an antisense nucleic acid corresponding to a portion of the marker gene, a riboxyme, a polymucleotide that suppresses the cyprocession of the gene through an RNAi effect or an antibody recognising a protein encoded by a marker gene; and (7) a DNA chip for testing for bronchial asthma or a chronic obstructive pulmonary disease, on which a procent or an antisense mucleic acid corresponding to a portion of the marker gene, a riboxyme, a polymucleotide that suppresses the cyprobe has been immobilised to assay a marker gene; and antiasthmatic activities, and can be used in gene therapy. The method corresponding the companied of the marker gene or an entipode and antiasthmatic activities, and can be used in gene therapy. The method corresponding to a procession of the marker gene or an entipode a bronchial asthma or chronic obstructive pulmonary disease. The present sequence is used in the exemplification of the present invention. Abd75366

Abd75366

Abd75366

Abd7 Abd7

Abd aB

```
30-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA029897;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA029897
 g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptide encoded by it. A protein of the invention has antinflammatory, antiarthritic, antirheumatic, immunosuppressive, osteopathic, antidiabetic, dermatological, antipsoriatic, antiallergic, antiasthmatic, hepatotropic, and respiratory activity. A polynucleotide of the invention may have a use in gene therapy. The PRO polypeptide, its agonist, antagonist, or antibody that specifically binds to the
                                                                                                     FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                       KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                 GHORINIROVTLEVSGAEPOSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSOORREK 180
                                                                               MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New PRO polypeptides and polynucleotides, useful for treating e.g. erythematosus, rheumatoid arthritis, diabetes mellitus, immune-mediated renal disease, or demyelinating diseases of the central or peripheral nervous system.
                                                                                                                                                                                                                                                                                                                                                                                          PRO; antiinflammatory; antiarthritic; antirheumatic; immunosuppressive; osteopathic; antidiabetic; dermatological; antipsoriatic; antiallergic; antiasthmatic; hepatotropic; respiratory; gene therapy; immune system.
                                                            1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a novel isolated nucleic acid and the PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wood WI;
                                         ;
0
                    Length 248;
                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van Lookeren M, Williams PM,
                   100.0%; Score 1308; DB 8; 100.0%; Pred. No. 1.8e-133;
                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 7; SEQ ID NO 1842; 2940pp; English.
                                                                                                                                                                                                                                                                                                         ADP24664 standard; protein; 248 AA
                                        ö
                                                                                                                                                                                                                                                                                                                                                                      polypeptide SEQ ID NO:1842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-2002; 2002US-0423394P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-OCT-2003; 2003WO-US034312
                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clark H, Schoenfeld J,
                                                                                                                                                                                                                                 LFPYAADP 248
                                                                                                                                                                                                                                                     LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004-419628/39.
                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; ADP24663
 Sequence 248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2004041170-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Unidentified
                                                                                                                                                                                                                                                                                                                                                   18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-MAY-2004
                                       248;
                                                                                н
                                                                                                     61
                                                                                                                         61
                                                                                                                                                                                       181
                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                     241
                                                                                                                                              121
                                                                                                                                                                  121
                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wu TD;
                                        Matches
                                                                                                                                                                                                                                                                                                                                                                        PRO ;
                                                                                                                                                                                                                                                                                     RESULT 5
ADP24664
8
                                                                                                                                                             a
                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                    ద
                                                                                                     ò
                                                                                                                      g
                                                                                                                                      ò
                                                                                                                                                                                      8
                                                                                                                                                                                                                                ઠે
```

```
Controlled the userunt of the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; organelle-associated protein; ORGA; cell proliferative disorder; actinic keratosis; arteriosclerosis; reproductive disorder; infertility; endometriosis; gastrointestinal disorder; ectopic pregnancy; hepatitis; gastroenteritis; neurological disorder; Alzheimer's disease; cirrhosis; glomerulonephritis; renal amyloidosis; renal failure; Addison's disease; renal disorder; ovulatory defect; tratagenesis; pick's disease; cancer; Huntington's disease; urologic disorder; oystitis; dementia; dysphagia; indigestion; gastritis; hypertension; gene therapy; bursitis; anorexia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GHQRINIRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KFFLLEPOMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 1308; DB 8; 100.0%; Pred. No. 1.8e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human organelle-associated protein (ORGA)-10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infection; urethritis; prostatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAO29897 standard; protein; 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-SEP-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LEPYAADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 248 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003044171-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
```

```
61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to human organelle-associated proteins (ORGA) and nucleic acid molecules encoding such proteins. ORGA sequences are useful for diagnosing, treating and/or preventing cell proliferative disorders (e.g. actinic keratosis, arteriosclerosis, bursitis, cirrhosis, cancers or hepatitis), reproductive disorders (e.g. infertility, endometriosis, ovulatory defects, ectopic pregnancy or teratogenesis), gastrointestinal disorders (e.g. dysphagia, peptide oesophagitis, gastritis, indigestion, anorexia or gastroenteritis), neurological disorders (e.g. Alzheimer's disease, Pick's disease, Huntington's disease or dementia), urologic disorders (e.g. infection, urethritis, cystitis, prostatitis or upper tract infections) and renal disorders (e.g. glomerulonephritis, renal amyloidosis, renal failure, addison's disease or hypertension). The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                       New organelle-associated proteins and polynucleotides, useful for diagnosing, treating and/or preventing cell proliferative, reproductive, gastrointestinal, neurological, urologic, and renal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                     Ramkumar J, Burford N. Xu Y, Chawla NK, Kable AE, Becha SD;
Richardson TW, Gorvad AE, Sprague WW, Elliott VS, Khare R;
Hawkins PR, Jin P, Lee SY, Marquis JP, Swarnakar A, Wilson AD;
Hafalia AJA, Bulloch S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70.1%; Score 916.5; DB 6
73.4%; Pred. No. 4.9e-91;
ive 0; Mismatches 1,
                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 166-167; 194pp; English.
                                                , 2001US-0332384P.
; 2001US-0341187P.
; 2002US-0351151P.
; 2002US-0360269P.
                                                                                                                                        14-JUN-2002; 2002US-0388946P.
               15-NOV-2002; 2002WO-US036807
                                                                                                                        2002US-0370637P
                                                                                                                                                                            (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |||||||||||
LFPYAADP 183
                                                                                                                                                                                                                                                                                                      WPI; 2003-457603/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
es 182, Conserv
                                                                                                                                                                                                                                                                                                                     N-PSDB; AAL60550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence 183 AA;
                                                                                                     27-FEB-2002;
05-APR-2002;
                                             16-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
```

```
human; immune response associated protein; IRAP; anti-HIV; antiallergic; antianaemic; antiasthmatic; antiarteriosclerotic; dermatological; antiantianaeroy; antidabetic; nephrotropic; antithyroid; thyromimetic; antibacterial; varucide; antiarthritic; osteopathic; antibacterial; virucide; antiparasitic; protozoacide; fungicide; cerebroprotective; neuroprotective; nootropic; antiparkinsonian; antipsoriatic; cytostatic; cardiant; gene therapy; antiparatic; cytostatic; cardiant; gene therapy; antiparatic; cytostatic; devalomental disorder; muscle disorder; neurological disorder; developmental disorder; muscle disorder; cell proliferative disorder; AIDS; allergy; anaemia; asthma; atherosclerosis; contact dermatitis; Crohn's disease; diabetes; glomerulonephritis; Grave's disease; Hashimoto's thyroiditis; multiple sclerosis; heumatoid arthritis; osteoporosis; systemic lupus erythematosus; infection; stroke, Alzheimer's disease;
                                  Human immune response associated protein IRAP-7 SEQ ID NO:7.
                                                                                                                                                                                                                              Parkinson's disease; psoriasis; cancer; cardiomyopathy
                                                                                                                                                                                                                                                                                                                                                           01-MAR-2002; 2002US-0361088P.
                                                                                                                                                                                                                                                                                                                                                                      2002US-0368494P.
2002US-0379876P.
                                                                                                                                                                                                                                                                                                                                28-FEB-2003; 2003WO-US006307
                                                                                                                                                                                                                                                                                                                                                                                               28-JUN-2002; 2002US-0392641P
          (first entry)
                                                                                                                                                                                                                                                                              WO2003074726-A2.
                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                       27-MAR-2002;
10-MAY-2002;
          04-DEC-2003
                                                                                                                                                                                                                                                                                                        12-SEP-2003
```

Becha SD, Jin P, Tran UK, Kable AE, Lee Emerling BM, Ison CH, Ramkumar J, Chang Chawla NK, | Marquis JP,

(INCY-) INCYTE GENOMICS INC.

WPI; 2003-722079/68. N-PSDB; ADB36352 New human immune response associated proteins and polynucleotides, useful for diagnosing, preventing or treating diseases or conditions associated with aberrant enzyme expression, e.g. cancer, AIDS, atherosclerosis or stroke.

Claim 1; Page 143; 158pp; English.

ADB36346 to ADB36361 encode the human immune response associated proteins given in ADB36330 to ADB36345, designated IRAP-1 to IRAP-16. IRAP sequences have anti-HIV, antiallergic, antiathmedic, antiparasitic, protozoacide, fungicide, cerebroprotective, antiparkinic, antiparkinsonian, antipacticit, virucide, antiparkinic, antiparkinsonian, antipacticit, cytostatic and cardiant activities, and can be used in gene therapy. The IRAP proteins and polynucleotides can be used in diagnosing, preventing or treating diseases or conditions associated with the decreased expression of IRAP, such as immune system, neurological, converxpression of IRAP, such as immune system, neurological, converted and under AIDS, allergies, anaemia, asthma, atherosclerosis, contact dermatitis, crobh's disease, diabetes, glomerulonephritis, Grave's include AIDS, allergies, anaemia, asthma, atherosclerosis, rheumatoid arthritis, osteoporosis, systemic lupus erythematosus, infections (e.g. bacterial, viral, fungal, parasitic or protozoal), stroke, Alzheimer's disease, parkinson's disease, psoriasis, cancer and cardiomyopathy. They are also useful in assessing the effects of exogenous compounds on the expression of nucleic acid and amino acid sequences of IRAP. The IRAP or the fragments are useful in screening compounds for effectiveness as agonist or antagonist of the polypeptides, or in altering the expression of the target polynucleotide and compounds that specifically bind to or modulate the activity of the polypeptide.

ADB36336 standard; protein; 149 AA.

ADB36336

ADB36336;

φ

```
RESULT
8888888888888888888
                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                               à
                                                                  ı,
                                                                                                                                                     FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                   FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMMHLV 120
                                                                                              9
                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                    actinic keratosis, arteriosclerosis; reproductive disorder; infertility; endometriosis; gastrointestinal disorder; ectopic pregnancy; hepatitis; gastroenteritis; neurological disorder; Alzhaimer's disease; cirrhosis; glomerulonephritis; renal amylodosis; renal failure; Addison's disease; renal disorder; ovulatory defect; teratogenesis; Pick's disease; cancer; Huntington's disease; urologic disorder; cystitis; dementia; dysphagia; indigestion; gastritis; hypertension; gene therapy; bursitis; anorexia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to human organelle-associated proteins (ORGA) and nucleic acid molecules encoding such proteins. ORGA sequences are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New organelle-associated proteins and polynucleotides, useful for diagnosing, treating and/or preventing cell proliferative, reproductive, gastrointestinal, neurological, urologic, and renal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                        Human; organelle-associated protein; ORGA; cell proliferative disorder;
                                                                                             1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                              MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               burrord N, Xu Y, Chawla NK, Kable AE, Becha SD;
W, Gorvad AE, Sprague WW, Elliott VS, Khare R;
Jin P, Lee SY, Marquis JP, Swarnakar A, Wilson AD;
Bulloch S;
                                                                   1;
                                       Length 149;
                                                                  Indels
                                       DB 7;
                                                                  5;
                                      55.1%; Score 720.5; DB 97.2%; Pred. No. 8e-70; ive 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                              Human organelle-associated protein (ORGA)-9.
                                                                                                                                                                                                                                      GHÖRNNRÖVTLEVSGAAVPSNA 142
                                                                                                                                                                                                           GHORNNROVTLEVSGAE-POSA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         infection; urethritis; prostatitis.
                                                                                                                                                                                                                                                                                                          AAO29896 standard; protein; 162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 166; 194pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-033284P.
2001US-0341187P.
2002US-0351151P.
2002US-0360269P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-NOV-2002; 2002WO-US036807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002US-0370637P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-JUN-2002; 2002US-0388946P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                   Query Match
Best Local Similarity 97.2
Matches 138; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2003-457603/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAL60549
           Sequence 149 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003044171-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hafalia AJA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-DEC-2001;
23-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-FEB-2002;
05-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                  03-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hawkins PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ramkumar J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Richardson
                                                                                                                                                                                                                                                                                                                                       AA029896;
                                                                                                                                                     61
                                                                                                                                                                               61
                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                              AA029896
                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                   ò
                                                                                                                                                                         8
                                                                                                                                                                                                          ò
```

```
FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; organelle-associated protein; ORGA; cell proliferative disorder; actinic keratosis; arteriosclerosis; reproductive disorder; infertility; andometriosis; gastrointestinal disorder; ectopic pregnancy; hepatitis; gastrocenteritis; neurological disorder; Alaheimer's disease; cirrhosis; glomerulonephritis; renal amyloidosis; renal failure; Addison's disease; renal disorder; ovulatory defect; teratogenesis; Pick's disease; cancer; Huntington's disease; urologic disorder; cystitis; dementia; dysphagia; infection; gastritis; hypetrension; gene therapy; bursitis; anorexia; infection; urethritis; prostatitis.
for diagnosing, treating and/or preventing cell proliferative disorders (e.g. actinic karatosis, arteriosclerosis, bursitis, cirrhosis, cancers or hepatitis), reproductive disorders (e.g. infertility, endometriosis, ovulatory defects, ectopic pregnancy or teratogenesis), gastrointestinal disorders (e.g. dysphagia, peptide oesophagitis, gastritis, indigestion, anorexia or gastroenteritis), neurological disorders (e.g. alzheimer's disease, Pick's disease, Huntington's disease or dementia), urologic tract infections) and renal disorders (e.g. glomerulonephritis or upper tract infections) and renal disorders (e.g. glomerulonephritis) renal amyloidosis, renal disorders (e.g. glomerulonephritis, renal invention is also useful in gene therapy. The present sequence is human
                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                              1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                      11; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xu Y, Chawla NK, Kable AE, Becha SD;
5, Sprague WW, Elliott VS, Khare R;
SY, Marquis JP, Swarnakar A, Wilson AD;
                                                                                                                                                                                                                                                                                                                           Length 162;
                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                         Score 719.5; DB 6;
Pred. No. 1.2e-69;
0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GHORNNROVTLEVS-----GAEPOSAPDTG 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human organelle-associated protein (ORGA)-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAO29895 standard; protein; 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-0332384P.
2001US-0341187P.
2002US-0351151P.
2002US-037059P.
2002US-0370637P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ramkumar J, Burford N, Xu Y
Richardson TW, Gorvad AE, Sj
Hawkins PR, Jin P, Lee SY,
Hafalia AJA, Bulloch S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-NOV-2002; 2002WO-US036807
                                                                                                                                                                                                                                                                                                                           55.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-SEP-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 139; Conserv
                                                                                                                                                                                                                                                                                     Sequence 162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003044171-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-DEC-2001;
23-JAN-2002;
27-FEB-2002;
                                                                                                                                                                                                                                               ORGA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                             Query Match
```

us-10-080-522-1.rag

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mouse; CD7; K12; cognate ligand; cluster of differentiation; cancer; identification; inhibiting T cell proliferation; H1V; infection; activating natural killer cell proliferation; leukaemia; lymphoma; sepsis; graft versus host disease; autoimmune disease; arthritis; multiple sclerosis; rheumatoid arthritis; proriatic arthritis; lupus; escleroderma; psoriasis; atopic dermatitis; type il diabetes mellitus; wasthenia gravis; psoriasis; dialiain-Barre Syndrome; Grave's disease; astemic lupus erythemacosus; dermatomosis; systemic contact dermatosus; dermatomosis; activated dermatitis; contact dermatitis; eczema; eczema; seborrhoeic dermatitis; rhinitis.
                                                                                                                                                                                                                              The invention relates to human organelle-associated proteins (ORGA) and nucleic acid molecules encoding such proteins. ORGA sequences are useful for diagnosing, treating and/or preventing cell proliferative disorders (e.g. actinic keratosis, arteriosclerosis, bursitis, cirrhosis, cancers or hepatitis), reproductive disorders (e.g. infertility, endometriosis, ovulatory defects, ectopic pregnancy or teratogenesis), gastrointestinal disorders (e.g. dysphagia, peptide oesophagitis, gastritis, indigestion, anorexia or gastroenteritis), neurological disorders (e.g. Alzheimer's disease, Pick's disease, Huntington's disease or dementia), urologic tract infections, urethritis, cystitis, proteatitis or upper tract infections) and renal disorders (e.g. glomerulonephritis, renal amyloidosis, renal failure, Addison's disease or hypertension). The
                                                                                        New organelle-associated proteins and polynucleotides, useful for diagnosing, treating and/or preventing cell proliferative, reproductive, gastrointestinal, neurological, urologic, and renal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 3.5e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37.6%; Score 492; DB 6;
100.0%; Pred. No. 3.5e-45
iive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQ 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQ 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse K12 protein sequence SEQ ID NO:8.
                                                                                                                                                                                     Claim 1; Page 165-166; 194pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB36660 standard; protein; 212 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0136450P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-2000; 2000WO-US014612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IMMV ) IMMUNEX CORP.
                    2003-457603/43,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                          N-PSDB; AAL60548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200073333-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-DEC-2000,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB36660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB36660

IID AAB3

AAC AAB3

XXX XXX

DT 13-M

XXX

XXX

MOUB

KW MOUB

KW
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
The present invention describes a method for stimulating (S) the intracellular signalling of CD (cluster of differentiation) 7 comprising contacting a cell that expresses CD7 with a recombinant K12 protein (I), the cognate ligand of CD7. (S) is useful for inhibiting T cell central and viriating NK toxicity in a mammal which involves administration of K12 protein. It is also used for treating HV-1 infection, cancer (T cell leukaemia, acute lymphomic leukaemia, cutaneous T cell lymphoma), actorein. It is also used for treating HV-1 infection, cancer (T cell leukaemia du viral infections, mediated by CD7. In the case of treating T cell leukaemia the soluble K12 protein is covalently attached to a toxin. A disease mediated by CD7 such as sepsis, graft versus host contrains to the constant of arthritis, protatic atthritis, solaroderma, lupus, arthritis, rheumatoid arthritis, psoriatis atthritis, solaroderma, lupus, psoriatis, pernicious anaemia, Addison's disease, myasthenia gravis, uveitis, pernicious anaemia, Addison's disease, myasthenia gravis, uveitis, pernicious anaemia, Addison's disease, myasthenia gravis, uveitis, pernicious and dermatchyositis, asthma, eczema, atopical dermatitis and rhinitis is also treated by administering at 812 cancer dermatitis, other eczematous dematitides, seborrhoeic dermatitis, and rhinitis is also treated by edunic represent sequence represent concert dermatomia in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130 TLEVSGABPQSAPDTGFWPVP-----AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bronchial asthma; chronic obstructive pulmonary disease; respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic; gene therapy; marker.
                                                                                                                                                                                           Stimulating intracellular signaling of CD7 comprises contacting a cell expressing CD7 with recombinant K12 protein, the cognate ligand of CD7 to inhibit T cell proliferation and/or activate natural killer cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLFPRMLWALLLLAASLNAHNDVWDEPCCTEHEVSVNRGSRVVWACNISNNLRDVTIELV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Marker gene related amino acid sequence SEQ ID NO:1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 24.9%; Score 326; DB 4; L
Best Local Similarity 37.8%; Pred. No. 1.2e-26;
Matches 74; Conservative 25; Mismatches 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADJ76167 standard; protein; 212 AA.
                                                                                                                                                                                                                                                                                                                                                                                            Claim 32; Page 42; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----KQFPVAPÓIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAY-2004 (first entry)
    ž,
                                                                             WPI; 2001-061511/07.
    Fanslow
                                                                                                                  N-PSDB; AAC88154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 212 AA;
                                                                                                                                                                                                                                                                                                          proliferation.
Lyman SD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADJ76167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            183
```

α

```
The present invention describes a method of testing for bronchial asthma or chronic obstructive pulmonary disease. The method comprises or chronic obstructive pulmonary disease. The method comprises from a subject, comparing the expression level determined with the from a subject, comparing the expression bivel determined with the expression level of the marker gene in a biological sample from a healthy subject, and judging whether the subject has bronchial asthma or chronic obstructive pulmonary disease. The marker gene comprises: (a) a group of genes (S1) whose expression levels increase when respiratory epithelial cells are stimulated with interleukin-13, or (b) a group of genes (S2) whose expression levels decrease when respiratory epithelial cells are stimulated with interleukin-13, or (b) a group of genes (S2) creening for bronchial asthma or chronic obstructive pulmonary disease; (2) a kit for screening for a candidate compound for a therapeutic agent to treat bronchial asthma or chronic obstructive pulmonary disease; (5) an animal model for bronchial asthma or chronic obstructive pulmonary disease; (5) a therapeutic agent for bronchial of disease; (4) an inducer that induces bronchial asthma in a mouse; (5) a marker gene or an antisense nucleic acid corresponding to a portion of the marker gene or an antisense nucleic acid corresponding to a portion of the marker gene or an antisense nucleic acid corresponding to a portion of the marker gene or an antisense nucleic acid corresponding to a portion of the marker gene aribozyme, a polynucleotide that suppresses the expression of the gene through an RNAi effect or an antibody recognising a probe has been immobilised to assay a marker gene. (1) has restinatory continulated bronchial asthma or a chronic obstructive pulmonary disease, on which a probe has been immobilised to assay and bused in gene therapeutic agent for creening cost to bronchial asthma or chronic obstructive pulmonary disease. The present cost is useful for testing for or screening to be been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Testing for bronchial asthma or chronic obstructive pulmonary disease by comparing the expression, level of a marker gene in a biological sample from a subject with the expression level of the gene in a sample from a healthy subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kubo H, Nagai H, Izuhara K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 16; SEQ ID NO 1419; 241pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yamaya M,
                                                                                                                                                                                                                                                                                                                       04-AUG-2003; 2003EP-00254857.
                                                                                                                                                                                                                                                                                                                                                                                                                             06-AUG-2002; 2002JP-00229312.
20-MAR-2003; 2003JP-00077212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GENO-) GENOX RES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ohtani N, Sugita Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-193155/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence 212 AA;
Mus musculus.
                                                                                                     EP1394274-A2
                                                                                                                                                                                                                       03-MAR-2004.
```

```
Sequence 212 AA;
                                                                                                                                                                                                                             70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                  130 TLEVSGAEPQSAPDTGFWPVP-----AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                130 NLTVNAADRQKTEDLPVTKVPDKPPTAVRTEVIIIIAIATTIIITGIGVFVWY----- 182
                                                                                                                               10 GLFPRMLWALLLLAASLNAHNDVWDEPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                     10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR 69
                                                     24;
     Length 212;
                                                     73; Indels
  24.9%; Score 326; DB 8; 37.8%; Pred. No. 1.2e-26; iive 25; Mismatches 73;
                                                                                                                                                                                                                                                                                                                                                                                                 177 RREKKFFLLEPQMKVA 192
                                                     Conservative
                            Similarity
Query Match
Best Local Simi:
Matches 74;
```

QQ

ò g ò a ò

```
The present invention describes a method of testing for bronchial asthma or chronic obstructive pulmonary disease. The method comprises

C determining the expression level of a marker gene in a biological sample from a subject, comparing the expression level determined with the expression level of the marker gene in a biological sample from a subject, comparing the expression levels increase when respiratory epithelial expression levels increase when respiratory epithelial constructive pulmonary disease. The marker gene comprises: (a) a group of genes (51) whose expression levels increase when respiratory epithelial calls are stimulated with interleukin-13; or (b) a group of genes (52) whose expression levels decrease when respiratory epithelial calls are stimulated with interleukin-13. Also described: (l) a reagent (l) for testing for bronchial asthma or chronic obstructive pulmonary disease; (2) a kit for screening for a candidate compound for a therapeutic agent to treat bronchial asthma or chronic obstructive pulmonary disease; (2) an animal model for bronchial asthma or chronic obstructive pulmonary disease; (4) an inducer that induces bronchial asthma or chronic obstructive pulmonary disease; (5) a therapeutic agent for bronchial asthma or chronic obstructive pulmonary disease, (6) a therapeutic agent for bronchial asthma or chronic obstructive pulmonary disease, comprising the compound, a marker gene or an antiense nucleic acid corresponding to a portion of the marker gene or an antiense nucleic acid corresponding to a portion of the marker gene are a chronic obstructive pulmonary disease, on which a probe has been immobilised to assay a marker gene. (1) has respiratory and antiasthmatic activities, and can be used in gene therapeutic agent for bronchial asthma or chronic obstructive pulmonary disease. The present is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                              bronchial asthma; chronic obstructive pulmonary disease; respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Testing for bronchial asthma or chronic obstructive pulmonary disease by comparing the expression level of a marker gene in a biological sample from a subject with the expression level of the gene in a sample from a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yamaya M, Kubo H, Nagai H, Izuhara K;
                                                                                                                                                                                                                                                                   Marker gene related amino acid sequence SEQ ID NO:1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 16; SEQ ID NO 1420; 241pp; English
                                                                                                                                    Ą
                                                                                                                                 ADJ76168 standard; protein; 212
| | : ||:::
183 ----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-AUG-2003; 2003EP-00254857.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-AUG-2002; 2002JP-00229312.
20-MAR-2003; 2003JP-00077212.
                                                                                                                                                                                                                       20-MAY-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GENO-) GENOX RES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ohtani N, Sugita Y,
                                                                                                                                                                                                                                                                                                                                                                gene therapy; marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-193155/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  healthy subject.
                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP1394274-A2.
                                                                                                                                                                              ADJ76168;
                                                                                       RESULT 12
                                                                                                                 ADJ76168
                       g
```

σ

```
ORGA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                      26-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-SEP-2000
                                                                                                                                                                                                                                                                                                                                 AAB34671;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                      RESULT 14
                                                                                                                                                                                                                                                                                                 AAB3467
$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                    원
                                ñ
                                                                                                                     129
                                                                                                                                         130 TLEVSGAEPQSAPDTGFWPVP------AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                        69
                                                                                                                                                                                                                                                                                                                                                  Human, organelle-associated protein, ORGA, cell proliferative disorder, actinic keratosis, arteriosclerosis, reproductive disorder, infertility, endometriosis gastrointestinal disorder; ectopic pregnancy; hepatitis, gastrochrestinal disorder; Alzheimer's disease; cirrhosis, glomerulonephritis, renal disorder; Alzheimer's disease; cirrhosis, glomerulonephritis, renal amyloidosis; renal failure; Addison's disease, Huntington's disease; urologic disorder; orstitis, dementia; disphagia; indigestion; gastritis; hypertension; gene therapy; burstitis; anorexia; infection; urethritis; prostatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New organelle-associated proteins and polynucleotides, useful for diagnosing, treating and/or preventing cell proliferative, reproductive, gastrointestinal, neurological, urologic, and renal disorders.
                                                                                                           10 GLFPRMLWALLLLAASLNAYNHVWDKPCCTEHEVSVNRGSRVYMACNISNNLRDVTIELV
                                                                                             70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV
                                                    10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                               130 NLIVNAADROKTEDLPVTKVPDKPPTAVRTEVIIIIAIATTIIITGIGVFVWY----
                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N, Xu Y, Chawla NK, Kable AE, Becha SD; ad AE, Sprague WW, Elliott VS, Khare R; Lee SY, Marquis JP, Swarnakar A, Wilson AD;
                               24;
         Length 212;
                               73; Indels
         325; DB 8;
No. 1.5e-26;
                                                                                                                                                                                                                                                                                                                                 Human organelle-associated protein (ORGA)-11
                               Mismatches
        24.8%; Score 3 37.8%; Pred. N tive 25; Mism
                                                                                                                                                                                                                                                                 Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 167; 194pp; English.
                                                                                                                                                                                                                                                                 AAO29898 standard; protein; 107
                                                                                                                                                                                     177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                        ---- KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-NOV-2001; 2001US-0332384P.
13-DEC-2001; 2001US-0341187P.
23-JAN-2002; 2002US-0351151P.
27-FEB-2002; 2002US-0360269P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-2002; 2002WO-US036807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0370637P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-JUN-2002; 2002US-0388946P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Richardson TW, Gorvad AE,
Hawkins PR, Jin P, Lee S
                                                                                                                                                                                                                                                                                                            (first entry)
                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Burford N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bulloch S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-457603/43.
         Query Match
Best Local Similarity
Matches 74; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAL60551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003044171-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hafalia AJA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-APR-2002;
                                                                                                                                                                                                                                                                                                            03-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ramkumar J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-MAY-2003
                                                                                                                                                                                                                                                                                      AA029898
                                                                                                                                                                                                                                           RESULT 1
AAO29898
                                                                      셤
                                                                                              ઠે
                                                                                                                  g
                                                                                                                                         ò
                                                                                                                                                             g
                                                                                                                                                                                     ò
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The polynucleotide sequences given in AAC59738 to AAC59787 encode the human secreted proteins given in AAB34577 to AAB34626. AAB34627 to AAB34686 represent human secreted polypeptide sequences and proteins homologous to them, which are given in the exemplification of the present invention. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Example of activities include:
The invention relates to human organelle-associated proteins (ORGA) and nucleic acid molecules encoding such proteins. ORGA sequences are useful for diagnosing, treating and/or preventing cell proliferative disorders (e.g. actinic keratosis, arteriosclerosis, bursitis, cirrhosis, cancers or hepatitis), reproductive disorders (e.g. infertility, endometriosis, ovulatory defects, ectopic pregnancy or teratogenesis), gastrointestinal disorders (e.g. dysphagia, peptide oesophagitis, gastrointestinal anorexia or gastroenteritis), neurological disorders (e.g. Alzheimer's disease, Pick's disease, Huntington's disease or dementia), urologic disorders (e.g. infection, urethritis, cystitis, prostatitis or upper tract infections) and renal disorders (e.g. glomerulonephritis renal amyloidosis, renal failure, Addison's disease or hypertension). The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; secreted protein, diagnosis; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cardinti, vasotropic; cardinti, vasotropic; fungicide; ophthalmological; gene therapy; autoimmune disease; neoplasm; hyperproliferative disorder; cancer; cardiovascular disorder; infection; cerebrovascular disorder; angiogenesis; nervous system disorder; corder; coular disorder; wound healing; skin aging; food additive; preservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein is used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3ene 35 human secreted protein homologous amino acid sequence #155.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated nucleic acid molecule encoding a human secreted pro
in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.5%; Score 294; DB 6; L. 100.0%; Pred. No. 1.4e-23; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 412; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Komatsoulis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB34671 standard; protein; 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0125360P.
99US-0138626P.
99US-0168662P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-MAR-2000; 2000WO-US006013.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 22.5
Best Local Similarity 100.
Matches 55; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-579482/54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200056751-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-1999;
11-JUN-1999;
03-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN
```

```
cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; continuous presentation in europrotective; antibacterial; virucide; fungicide; and neuroprotective; antibacterial; virucide; fungicide; and copthalmological. The polynucleotides and proteins can be are used to prevent, treat or ameliorate a medical condition in e.g. humans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. They are also used in diagnoslina pathological condition or susceptibility to a pathological condition. Disorders which are diagnosed or treated include autoimmune diseases, hyperproliferative disorders e.g. neoplasms and cancoimmune diseases, hyperproliferative disorders. Grenbrowscular disorders, angiogenesis, nervous system disorders. The proteins can also bacteria, viruses and fungi and ocular disorders. The proteins can also brevent skin aging due to sunburn, to maintain organs before transplantation, for supporting eall culture of primary tissues, to regenerate tissues and in chemotaxis. The proteins can also be used as a diditive or preservative to increase or decrease storage capabilities. AAC59729 to AAC5973 and AAB34576 represent sequences used in the exemplification of the present invention
   antiarthritic; immunosuppressive; antirheumatic; antiproliferative;
```

Sequence 55 AA;

ö Gaps 194 LRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALBLLSPQPLFPYAADP 248 1 LRAGAOOGLSRASABLWTPDSEPTPRPLALVFKPSPLGALELLSPOPLFPYAADP 55 ö Length 55; 0; Indela Score 286; DB 3; I Pred. No. 3.9e-23; Mismatches 21.9%; Scc. 100.0%; Pre Conservative Ouery Match Best Local Similarity a

AAB34672 standard; protein; 55 AA (first entry) 26-JAN-2001 AAB34672; RESULT 15 AAB3467 

secreted protein; diagnosis; immunosuppressive; antiarthritic; Human secreted protein sequence encoded by gene 35 SEQ ID NO:156.

antirheumatic; antiproliferative, cytostatic; cardiant, vasotropic; cerebroprotective, noctropic; neuroprotective, antibacterial, virucide; funcicide; ophthalmological; gene therapy; autoimmune disease; neoplasm; hyperproliferative disorder; cancer; cardiovascular disorder; infection; cerebrovascular disorder; angiogenesis; nervous system disorder; ocular disorder; wound healing; skin aging; food additive; preservative.

Homo sapiens

WO200056751-A1

28-SEP-2000

09-MAR-2000; 2000WO-US006013

99US-0125360P. 99US-0138626P. 99US-0168662P. 19-MAR-1999; 11-JUN-1999; 03-DEC-1999;

(HUMA-) HUMAN GENOME SCI INC.

Rosen CA, Ruben SM, Komatsoulis G;

WPI; 2000-579482/54.

Isolated nucleic acid molecule encoding a human secreted protein is used in preventing, treating or ameliorating a medical condition.

Disclosure; Page 412-413; 419pp; English.

The polynucleotide sequences given in AAC59738 to AAC59787 encode the

Characteristics based on the treated proteins and excerted proteins have activities based on the tissues invention. Human secreted proteins have activities based on the present invention. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Example of activities include: and cells the genes are expressed in. Example of activities include: candiant; vasotropic; cerebroprotective; nootropic; candiance; nootropic or succeptibility to a loop pathological condition or susceptibility to a loop activities, pathological condition. Disorders which are disquosed or treated include autoimmune diseases, hyperpoliferative disorders or neoplasms and cancers of the breast or liver, cardiovascular disorders, cerebrovascular disorders, angiogenesis, nervous system disorders. The proteins can also be used to aid wound healing and epithelial cell proliferation, to prevent skin aging due to sunburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The proteins can also be used additive or preservative to increase or decrease storage capeness and the present invention capened sequences used in the exemplification of the present invention AAB34627 to Sequence 55 AA; 

. 0 21.3%; Score 279; DB 3; Length 55; 98.2%; Pred. No. 2.3e-22; ive 0; Mismatches 1; Indels Matches 54, Conservative Best Local Similarity Query Match

ö

194 LRAGAQQGLSRASAELWIPDSEPTPRPLALVFKPSPLGALELLSPQPLFPYAADP 248 1 LRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQPLVPYAADP ò

Search completed: October 17, 2005, 07:12:16 Job time : 127 secs

```
October 17, 2005, 07:12:25 ; Search time 2066 Seconds (without alignments) 50.036 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                        US-10-080-522-1
1308
1 MQTCPLAFPGHVSQALGTLL......PLGALELLSPQPLFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Applications AA:*

1: \cgn2_6\ptodata/2\pubpaa/US07_PUBCOMB.pep:*

2: \cgn2_6\ptodata/2\pubpaa/PCT_RW PUB.pep:*

3: \cgn2_6\ptodata/2\pubpaa/US06_NEW PUB.pep:*

4: \cgn2_6\ptodata/2\pubpaa/US06_NEW PUB.pep:*

5: \cgn2_6\ptodata/2\pubpaa/US06_NEW PUB.pep:*

5: \cgn2_6\ptodata/2\pubpaa/US06_NEW PUB.pep:*

7: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

7: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

8: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

9: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

10: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

11: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

12: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

13: \cgn2_6\ptodata/2\pubpaa/US08_NEW PUB.pep:*

14: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

15: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

16: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

16: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

16: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

16: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

17: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

18: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

19: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

10: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

10: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

10: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

10: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

11: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*

12: \cgn2_6\ptodata/2\pubpaa/US08_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1860064
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1860064 seqs, 416830855 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                 OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1110
                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                      Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

|           |    | Description              |   | Sequence 32, Appl | Sequence 4, Appli | Sequence 1, Appli | Seguence 618, App | Sequence 8, Appli | Sequence 1419, Ap  | Sequence 1420, Ap  | Sequence 3831, Ap  | Sequence 35, Appl | Sequence 34, Appl | Sequence 446, App |
|-----------|----|--------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| SUMMARIES |    | ID                       |   | US-09-799-777-32  | US-09-997-165-4   | US-10-080-522-1   | US-10-631-467-618 | US-09-997-165-8   | US-10-631-467-1419 | US-10-631-467-1420 | US-11-097-143-3831 | US-10-052-648A-35 | US-10-052-648A-34 | US-10-072-012-446 |
|           |    | DB                       |   | σ                 | σ                 | 14                | 18                | Q                 | 18                 | 18                 | 20                 | 15                | 15                | 15                |
|           |    | Query<br>Match Length DB |   | 248               | 248               | 248               | 248               | 212               | 212                | 212                | 874                | 696               | 696               | 206               |
|           | de | Query<br>Match           |   | 100.0             | 100.0             | 100.0             | 100.0             | 24.9              | 24.9               | 24.8               | 7.6                | 7.5               | 7.3               | 7.3               |
|           |    | Score                    | 1 | 1308              | 1308              | 1308              | 1308              | 326               | 326                | 325                | 100                | 86                | 96                | 95.5              |
|           |    | Result<br>No.            |   | -                 | 8                 | m                 | 4                 | S                 | 9                  | 7                  | ထ                  | σ                 | 10                | 11                |

| 0 0 0 0 0 0 0  | 200000000   | Sequence 14023, App<br>Sequence 14023, A<br>Sequence 43635, A<br>Sequence 24, Appl<br>Sequence 2, Appli<br>Sequence 4, Appli | 20004401  | 8220999   |
|--|---|--|---|---|
| 10-719-993-<br>10-425-114-<br>10-425-115-<br>10-080-334-<br>10-408-7654- | -09-759-1308-2<br>-10-189-123-5<br>-10-188-495-5<br>-10-188-495-5<br>-10-189-123-3<br>-10-188-495-3 | -10-141-790-<br>-10-156-761-<br>-10-282-122A-<br>-10-322-696-<br>-10-742-682-  | 10-737-318-1<br>10-737-318-1<br>10-737-318-6<br>10-095-131A-1<br>10-091-438-1<br>10-091-438-1 | US-10-626-832-19<br>US-10-369-493-13729<br>US-10-425-115-311858<br>US-10-068-212<br>US-10-068-212<br>US-10-748-112-18 |
| 16<br>16<br>16<br>16<br>16   | 11111111  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 4448888   | 17<br>16<br>16<br>17<br>17  |
| 541<br>597<br>597<br>6620<br>6620  | . 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4   | $n \sim \infty$ $n \sim \infty$ $n \sim \infty$  | 366<br>366<br>366<br>366<br>366<br>366<br>366<br>366<br>366                                   | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~   |
| 0.0.0.0.0  |   | ,  | ្រុក្រុក្សក្នុក<br>ភូហ្គុំក្រុម្មិក្រុក្ស   | <u> </u>  |
| 91.5<br>91.5<br>91.5<br>91   | , co  | . 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5  | 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9   |   |
| 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                   | 11122224<br>1222224   | 2 2 2 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | 1 G W W W W W W W W W W W W W W W W W W   | 0 0 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5   |

### ALIGNMENTS

```
RESULT 1

US-09-777-32

US-09-777-32

Sequence 32, Application US/09799777

Patent No. US20020091244A1

GENERAL INPORMATION:

GENERAL INPORMATION:

CORIEY, Nail C.

Guegler, Karl J.

Baugh, Mariah
Sather, Susan
Shah, Purvi

TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
NUMBER OF SEQUENCES: 154

CORRESPONDENCE ADDERSS:

ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 94304

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: INGY PERFECT 6.1 for Windows/MS-DOS
SOFTWARE: Word DATA:
PRIOR APPLICATION NUMBER: US/09/799,777
FILING DATE: OF-MAR-2001
CLASSIFICATION NUMBER: US/09/002,485
FILING DATE: CURRANTION:
ATTORNEY/AGENT INCORMATION:
```

240

```
181 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                     121 GHORNNROVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQORREK 180
61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNBGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 14; Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLENTZ-KESLER, KIMBERLY
TITLE OF INVENTION: GENE PRODUCT OVER EXPRESSED IN CANCER
CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD, 8TH FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 1308; DB 14;
100.0%; Pred. No. 1.9e-124;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 09/539,774
FILING DATE: 31-MAR-2000
APPLICATION NUMBER: US 09/210,474
FILING DATE: 14-DEC-1998
APPLICATION NUMBER: US 08/755,559
FILING DATE: 22-NOV-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: WILSON, MARY J. REGISTRATION NUMBER: 32,955
REFERENCE/DOCKET NUMBER: 1579-645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 22201-4714

COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
    COMPUTER: IBM PC compatible
    OPPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
REPLICATION NUMBER: US/10/080,522
FILING DATE: 25-F0-2002
CLASSIPICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 248 amino acids
                                                                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/10080522
Publication No. US20030096326A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KAUFMAN, RUSSEL E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (703) 816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: ARLINGTON STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: U.S.A.
                                                                                                                                                                                                                                                 LFPYAADP 248
                                                                                                                                                                                                                   241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE
                                                                                                                                                                                                                                                                                                                             RESULT 3
US-10-080-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-080-522-1
                                         121
                                                                                                                              181
                                                                                                                                                                                                                                                             241
                                                                              Dp
                                                                                                                                                                   g
                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                         ò
                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                     1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 1308; DB 9; Length 248; 100.0%; Pred. No. 1.9e-124; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Lyman, Stewart D.
APPLICANT: Lyman, Stewart D.
TITLE OF INVENTION: LIGAND FOR CD7 AND METHODS OF USE THEREOF FILE REFERENCE: 2913-US
CURRENT APPLICATION NUMBER: US/09/997,165
CURRENT FILING DATE: 2001-11-27
PRIOR APPLICATION NUMBER: PCT/US00/14612
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 1999-05-28
                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                Score 1308; DB 9;
Pred. No. 1.9e-124;
                                       REFERENCE/DOCKET NUMBER: PF-0459 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                          TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 32
                       REGISTRATION NUMBER: 36,749
                                                                                                   TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHRACTERISTICS:
LENGTH: 248 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09997165
Patent No. US20020141999A1
                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
LENGTH: 248
                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
US-09-997-165-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 248; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                 US-09-799-777-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-997-165-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
```

셤 ઠ 요 ò a g ઠે

ò

ö

Gaps

. 0

g

ò

```
APPLICANT: Genox Research Inc.
TITLE OF INVENTION: Method for testing for broncheal asthma, or chronic obstructive
TITLE OF INVENTION: disease.
TITLE OF INVENTION NUMBER: US/10/631,467
CURRENT APPLICATION NUMBER: UP 2003-07-31
PRIOR FILING DATE: 2003-03-20
PRIOR FILING DATE: 2003-08-06
NUMBER OF SEQ ID NOS: 208-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 TLEVSGAEPQSAPDTGFWPVP------AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 GLFPRMLWALLILAASINAHNDVWDEPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                        Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 24.9%; Score 326; DB 18; Best Local Similarity 37.8%; Pred. No. 1.4e-24; Matches 74; Conservative 25; Mismatches 73;
                                                                                                                                                                                                                                                                                                                                                                                                      Score 326; DB 9;
Pred. No. 1.4e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative 25; Mismatches
                      CURRENT APPLICATION NUMBER: US/09/997,165
CURRENT FILING DATE: 2001-11-27
PRIOR APPLICATION NUMBER: PCT/US00/14612
PRIOR FILING DATE: 2000-05-26
PRIOR PLING DATE: 1999-05-28
NUMBER OF SEQ ID NOS: 8
SEQ ID NO SEQ ID NOS: 8
LENGTH: 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 1419, Application US/10631467; Publication No. US20050208496A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130 TLEVSGAEPOSAPDTGFWPVP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  177 RREKKFFLLEPOMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                      24.9%;
37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin version 3.1
SEQ ID NO 1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) ORGANISM: Mus musculus
US-10-631-467-1419
                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                   ) ORGANISM: Mus sp.
US-09-997-165-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-631-467-1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 10. Application US/10631467
Fublication No. US20050208496A1
GENERAL INFORMATION:
FILE OF INVENTION:
GENERAL INFORMATION:
GENERAL INFORMATION:
FILE OF INFORMATION:
GENERAL INFORMATION:
FILE OF INFORMATION:
FILE 
                                                                                                                                                                                                                  240
FSHVNIKLRAHGQESAIFNEVAPGYPSRDGWQLQVQGGVAQLVIKGARDSHAGLYWMHLV 120
                                                                                                                                  FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYWMHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KFFLLEPOMKVAALRAGAOGGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 KFFLLEPOMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MQTCPLAFFGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                         KFFLLEPOMKVAALRAGAOOGLSRASAELWTPDSEPTPRPLALVFKPSPLGALBLLSPOP
                                                                                                      GHORNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQORREK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 1308; DB 18; Length 248; 100.0%; Pred. No. 1.9e-124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 8, Application US/09997165
; Patent No. US20020141999A1
; GENERAL INFORMATION:
; APPLICANT: Lyman, Stewart D.
; APPLICANT: Fanslow, William C.
; TITLE OF INVENTION: LIGAND FOR CD7 AND METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                     LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-10-631-467-618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-631-467-618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Simi
Matches 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-997-165-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
  61
                                                 61
                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                       g
                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                ò
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
```

ò g

```
95 PGHITLIAG----LYEDPSAVLRGWKSNPIDFDTVFNRSSQTYAWGANDVL----NVFS 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63 HVN----IKLRAHGQESAIFNEVAPGY--FSRDGWQLQVQGGVAQLVIKGARDSHAGLYM 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 WHLVGHQRNNRQVTLEVSG-AEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQ 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146 HVSNGGEINLRFYNHDL----DFSPGYDAYEEDEWVFKRVKLLLQQKREALQRAQNVVFF 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176 ORREK-----KFFLLEPOMKVAALRAGAQOGLSRASAELWTPDSEPTPRPLALVFKPS 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Vernet, Corine A.M.
APPLICANT: Zerhusen, Bryan D.
TITLE OF INVENTION: PROTEINS, POLYNUCLEOTIDES ENCODING THEM AND METHODS OF TITLE OF INVENTION: USING THE SAME FILE REFERENCE: 21402-250 (CURA-550) CURRENT APPLICATION NUMBER: US/10/052,648A CURRENT PILING DATE: 2002-12-09
                                                                                                                                                                                                                                                                                                                                                                                                                        9 PGHVSQALGTLLFLAASLSAQNEGWDS-PICTEGVVSVS-----WGENTVMSCNISNAFS
                                                                                                                                                                                                                                                                                                                                                                           82;
                                                                                                                                                                                                                                                                                                                                 Length 874;
                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                              Query Match 7.6%; Score 100; DB 20; Best Local Similarity 23.2%; Pred. No. 0.98; Matches 60; Conservative 33; Mismatches 84;
           FRIOR FILING DATE: 1375712.6

PRIOR FILING DATE: 2000-01.12

PRIOR FILING DATE: 2000-02-24

PRIOR FILING DATE: 2000-02-24

PRIOR FILING DATE: 2000-03-23

NUMBER OF SEQ ID NOS: 43008

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 3831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202 LHLLG-----LDTAGHVHKPGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 35, Application US/10052648A Publication No. US20040005558A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: 60/272,920
PRIOR FILING DATE: 2001-03-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/262,454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229 -----PLGALELLSPOPL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               279 NEGPAMPLHELEQAQLTPL 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Edinger, Shlomit R.
Blerman, Karen
Gerlach, Valerie
Gunther, Erik
Kekuda, Ramesh
MacDougall, John R.
Mehraban, Puad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patturajan, Meera
Rothenberg, Mark
Shimkets, Richard
Smithson, Glennda
Spytek, Kimberly A.
Stone, David J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Anderson, David
APPLICANT: Burgess, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Casman, Stacie
Colman, Steven
                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: DROSOPHILA
US-11-097-143-3831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -10-052-648A-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                 TITLE OF INVENTION: DETECTION KIT, SUCH AS NUCLEIC ACID
TITLE OF INVENTION: ARRAYS, FOR DETECTING EXPRESSION OF 10,000 OR MORE
TITLE OF INVENTION: ARRAYS, FOR DETECTING EXPRESSION OF 10,000 OR MORE
TITLE OF INVENTION: DROSOPHILA GENES.
FILE REFERENCE: CL000728
CURRENT APPLICATION NUMBER: 60/157,832
PRIOR APPLICATION NUMBER: 60/160,191
PRIOR FILING DATE: 1999-10-05
PRIOR FILING DATE: 1999-10-19
PRIOR FILING DATE: 1999-10-28
PRIOR FILING DATE: 1999-11-12
PRIOR FILING DATE: 1999-11-12
PRIOR FILING DATE: 1999-11-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                130 TLEVSGAEPQSAPDTGFWPVP------AVVTAVFILLVALVMFAWYRCRCSQQ 176
130 NLTVNAADRQKTEDLPVTKVPDKPPTAVRTEVIIIIAIATTIIITGIGVFVWY----- 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130 NLIVNAADRQKTEDLPVTKVPDKPPTAVRTEVIIIIAIATTIIITGIGVFVWY----- 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 GLFPRMLWALLLLAASLNAYNHVWDKPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24.8%; Score 325; DB 18; Length 212; 37.8%; Pred. No. 1.8e-24; ive 25; Mismatches 73; Indels 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3831, Application US/11097143
Publication No. US20050208558A1
GENERAL INFORMATION:
APPLICANT: Venter, J. Craig
                                                                                                                                                                                                Sequence 1420, Application US/10631467 Publication No. US20050208496A1
                                       177 RREKKFFLLEPOMKVA 192
                                                                        | | : ||::::
----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177 RREKKFFLLEPOMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | | : ||:::
----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Mus musculus
US-10-631-467-1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                           US-10-631-467-1420
```

g

g ò g ò

ò

```
675 GRVCQCQNGASCDHISGKCTCRTGFTCQHCE--QRCAPGTFGYGCQQLCECMNNSTCDHV 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96 QGG-VAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 733 TGTCYCSPGFKGIRCDQAALMMEELNPYTKISPAL----GAERHSV-----GAVTGIML 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       620 OACPPGFWGPACFHACSCHN----GASCSAEDGACHCTPGWTGLFCTORCPAAFFGKDC 674
                        POLYNUCLEOTIDES ENCODING THEM AND METHODS OF
   TITLE OF INVENTION: DEPTEINS, POLYNUCLEOTIDES ENCODING THEM AND METHODS;
TITLE OF INVENTION: USING THE SAME
FILE REFERENCE: 21402-250 (CURA-550)
CURRENT APPLICATION NUMBER: 05/10/052,648A
CURRENT FILING DATE: 2002-12-09
FRIOR PAPLICATION NUMBER: 60/272,920
FRIOR PAPLICATION NUMBER: 60/272,920
FRIOR PAPLICATION NUMBER: 60/272,920
FRIOR APPLICATION NUMBER: 60/272,920
FRIOR APPLICATION NUMBER: 60/284,549
FRIOR APPLICATION NUMBER: 60/284,549
FRIOR PAPLICATION NUMBER: 60/284,549
FRIOR PAPLICATION NUMBER: 60/262,892
FRIOR APPLICATION NUMBER: 60/262,892
FRIOR APPLICATION NUMBER: 60/263,605
FRIOR APPLICATION NUMBER: 60/263,605
FRIOR APPLICATION NUMBER: 60/263,605
FRIOR PILING DATE: 2001-01-13
FRIOR PILING DATE: 2001-01-23
FRIOR PILING DATE: 2001-01-23
FRIOR PILING DATE: 2001-01-23
FRIOR PILING DATE: 2001-01-23
FRIOR PILING DATE: 2001-01-31
FRIOR PILING DATE: 2001-01-31
FRIOR FILING DATE: 2001-01-31
FRIOR FILING DATE: 2001-02-31
FRIOR FILING DATE: 2001-01-31
FRIOR FILING DATE: 2001-02-31
FRIOR FILING DATE: 2001-02-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 OTCPLAFPG----HVSQALGTLLFLAASLSAQN-----EGWDSPICTEGVVSVSWGENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 15; Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52 VMSCNISNAFS -- HVNIKLRAH ---- GQESAIFNEVAPGYFSRDGWQL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.3%; Score 96; 24.9%; Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 AVFILLVALVMFAWYRCRCSQQRRE 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 446, Application US/10072012 Publication No. US20040033493A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gangolli, Esha
Padigaru, Muralidhara
Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Miller, Charles E.
Gerlach, Valerie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patturajan, Meera
Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Tchernev, Velizar
APPLICANT: Spytek, Kimberly
APPLICANT: Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 34
LENGTH: 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 24.94
Matches 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rastelli,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -10-072-012-446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-052-648A-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  620 QACPPGFWGPACFHACSCHN----GASCSAEDGACHCTPGWTGLFCTQRCPAAFFGKDC 674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                675 GRVCQCQNGASCDHISGKCTCRTGFTGQHCE--QRCAPGTFGYGCQQLCECMNNSTCDHV 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96 OGG-VAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               733 TGTCYCSPGFKGIRCDQAALMMEELNPYTKISPAL----GAERHSV-----GAVTGIML 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 QTCPLAFPG----HVSQALGTLLFLAASLSAQN-----EGWDSPICTEGVVSVSWGENT 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52 VMSCNISNAFS--HVNIKLRAH----GOESAIFNEVAPGYFSRDGWOL------OV 95
PRIOR FILING DATE: 2001-04-18

PRIOR APPLICATION NUMBER: 60/303,229

PRIOR APPLICATION NUMBER: 60/262,892

PRIOR APPLICATION NUMBER: 60/262,892

PRIOR PILING DATE: 2001-01-01-01

PRIOR PILING DATE: 2001-01-01-01

PRIOR PILING DATE: 2001-01-01-01

PRIOR APPLICATION NUMBER: 60/269,098

PRIOR APPLICATION NUMBER: 60/269,098

PRIOR APPLICATION NUMBER: 60/264,159

PRIOR PILING DATE: 2001-01-25

PRIOR PILING DATE: 2001-01-25

PRIOR PILING DATE: 2001-01-25

PRIOR PILING DATE: 2001-02-27

PRIOR PILING DATE: 201-02-27

PRIOR PILING DATE: 201-02-27

PRIOR PILING DATE: 201-02-27

PRIOR PILING DATE: 201-02-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 7.5%; Score 98; DB 15; Length 969; Best Local Similarity 24.9%; Pred. No. 1.8; Matches 51; Conservative 24; Mismatches 86; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (848)..(889)
CTHER INFORMATION: Where Xaa is any amino acid
US-10-052-648A-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         155 AVFILLVALVMFAWYRCRCSQQRRE 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        783 LLFLIVVLLGLFAWHRRROKEKGRD 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 34, Application US/10052648A Publication No. US20040005558A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Anderson, David
APPLICANT: Burgess, Catherine
APPLICANT: Casman, Stacie
APPLICANT: Colman, Steven
APPLICANT: Edinger, Shlomit R.
APPLICANT: Elerman, Karen
APPLICANT: Genlach, Valerie
APPLICANT: Genlach, Valerie
APPLICANT: Kekuda, Ramesh
APPLICANT: Mehraban, Fued
APPLICANT: Mehraban, Fued
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patturajan, Meera
Rothenberg, Mark
Shimkets, Richard
Smithson, Glennda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Spytek, Kimberly A. Stone, David J. Vernet, Corine A.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-052-648A-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 35
```

ઠે g ò

g ò a

```
FILE REFERENCE: CL001496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-10-425-114-62807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-425-114-62807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  211
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     228 CEVA---HVTLQGGPPLRGTANLS---ETIRVPPTLEITRSPSAGNQVNVTCQVNKFYPR 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 HVNIKLRAHG-----QESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMW 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             282 HLQLTWLENGNMSRTEAASVLVENKDGTFNQTSWLLVNSSAHREAVVLTCQ----- 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                118 HLVGHQRN---NRQVTLEVSGAEPQSAPDTGFWPVP-----AVVTAVFILLVALVM 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 CPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAF-S 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 1391
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37;
                                                                                                                                                                                                     APPLICANT: Lepley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Burgess, Catherine E.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 7.3%; Score 95.5; DB 15; Best Local Similarity 26.6%; Pred. No. 1.4; Matches 51; Conservative 25; Mismatches 79;
                                                                                                                                                                                                                                                                                          TILLE REFERENCE: 12402-258

CURRENT APPLICATION NUMBER: US/10/072,012

CURRENT PILING DATE: 2002-01-31

PRIOR PILING DATE: 2001-01-30

PRIOR PILING DATE: 2001-01-30

PRIOR PILING DATE: 2001-01-31

PRIOR PELING DATE: 2001-01-31

PRIOR PELING DATE: 2001-01-31

PRIOR PELING DATE: 2001-02-02

PRIOR PELING DATE: 2001-02-02

PRIOR PELING DATE: 2001-02-05

PRIOR PILING DATE: 2001-02-05

PRIOR PILING DATE: 2001-02-07

PRIOR PILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 534, Application US/10719993;
Publication No. US20040265849A1;
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele et al.
TITLE OF INVENTION: GENETIC POLYMORE;
TITLE OF INVENTION: ALZHEIMER'S DISS
Taupier Jr, Raymond J.
Gusev, Vladimir Y.
Colman, Steven D.
Wolenc, Adam R.
                                                                                                                                                                             Alsobrook II, John P.
                                                                                                                        Furtak, Katarzyna
Grosse, William M
                                                                                                     Pena, Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   166 FAWYRCRCSQQR 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AALYLLRIRONK 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
US-10-719-993-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-072-012-446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

Michele et al. GENETIC POLYMORPHISMS ASSOCIATED WITH ALZHEIMER'S DISEASE, METHODS OF DETECTION AND USES THEREOF

```
APPLICANT: Liu, Jingdong
APPLICANT: Liu, Jingdong
APPLICANT: Liu, Jingdong
APPLICANT: Shou, Yihua
APPLICANT: Screen, Serven E
APPLICANT: Screen, Serven E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Streen, Succipied Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
SEQ ID NOS: 73128
SEQ ID NOS: 73128
LENGTH: 597
                                                                                                                                                                                                                                                                                                                                                      11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15 HLOKVYGSLLIJALSSYRKGRGDEGFWKQVYQTPRRSPFRSTISWEEQV----SPYSAYL 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HVNIKLRAHGQESAIFNEVAPGYFSRDGWQL------QVQGGVAQLVIKGARDSHA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                267 DYSVYALQKSENGPLLLSFLHYDSYQRNFSNMTWP-HGSLPEDRPGGGFYNELCETQSAF 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154 TAVFILLVALVMFAWYRCRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAELW--- 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---LYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFW----PVPAVV 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :| | : | : | : | : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : | . : |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299 FKAAAAEAGHPDWELPDDAGEINDTPEDTGFFTAERGTYLTEQGRFFLTWYSRKLIQHGD 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359 RVLDBAN--KAFLGCKVKLAAKVSGIHWWYRHPSHAA---ELTSGYYNLGGRDGY---- 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----ICTEGVVSVSW-----GE 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50 NTVMSCNISNAFSHVNIKLRA------HGQESAIFNEVAPGYFS---RDGWQLQVQ 96
                                                                                                                                                                                                                                                                                                                                                                                                             -----WDSPICTEGVVSVSWGENTVMSCNISNAFS
                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                      77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121;
                                                                                                                                                                                                                                                                                            Length 541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 597;
                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Clone ID: LIB3279-208-G7_FLI.pep
                                                                                                                                                                                                                                                                                               DB 16;
                                                                                                                                                                                                                                                                                                                                                      . 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.0%; Score 91.5; DB 15;
19.9%; Pred: No. 4.3;
iive 44; Mismatches 84;
                                                                                                                                                                                                                                                                                            Query Match 7.0%; Score 91.5; DE Best Local Similarity 19.9%; Pred. No. 3.8; Matches 51; Conservative 39; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 FLAASLSAQNEGWDSP-------
CURRENT APPLICATION NUMBER: US/10/719,993
CURRENT FILING DATE: 2003-11-24
NUMBER OF SEQ ID NOS: 55342
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 534
LENGTH: 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Sequence 62807, Application US/10425114; Publication No. US20040034888A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                11 HVSQALGTLLFLAASLSAQNEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----TPDSEPTPR 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               365 NFDDITILPONKPSOR 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           326 TGVTAVLLTLM----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62; Conservative
                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
US-10-719-993-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 62; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113 G-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
Polynucleotides Encoding Them and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TILE REFERENCE: 21402-275

CURRENT APPLICATION NUMBER: US/10/080,334

CURRENT FILING DATE: 2002-02-21

PRIOR APPLICATION NUMBER: 60/270,523

PRIOR APPLICATION NUMBER: 60/322,712

PRIOR FILING DATE: 2001-02-21

PRIOR FILING DATE: 2001-09-17

PRIOR FILING DATE: 2001-09-17

PRIOR FILING DATE: 2001-09-17

PRIOR APPLICATION NUMBER: 60/330,307

PRIOR FILING DATE: 2001-01-18

PRIOR APPLICATION NUMBER: 60/278,796

PRIOR FILING DATE: 2001-03-26

PRIOR APPLICATION NUMBER: 60/278,796

PRIOR FILING DATE: 2001-03-26

PRIOR APPLICATION NUMBER: 60/278,796

PRIOR PRILING DATE: 2001-04-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2001-09-10
RRIOR APPLICATION NUMBER: 60/286,548
RRIOR FILING DATE: 2001-04-25
PRIOR APPLICATION NUMBER: 60/291,765
PRIOR APPLICATION NUMBER: 60/200,797
PRIOR APPLICATION NUMBER: 60/270,797
PRIOR FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R FILING DATE: 2001-02-21
R APPLICATION NUMBER: 60/274,295
R FILING DATE: 2001-03-08
R FILING DATE: 2001-03-08
R FILING DATE: 2001-03-08
R FILING DATE: 2001-09-10
R APPLICATION NUMBER: 60/218,526
R APPLICATION NUMBER: 60/286,548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 2001-03-16
APPLICATION NUMBER: 60/311,595
APPLICATION UNBER: 60/311,595
APPLICATION NUMBER: 60/270,220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 2001-04-04
APPLICATION NUMBER: 60/276,677
FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/270,810
PRIOR FILING DATE: 2001-02-23
NUMBER OF SEQ ID NOS: 388
SOFTWARE: PATENTIN VET. 2,1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/276,400 PRIOR FILING DATE: 2001-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Proteins, Polyni
TITLE OF INVENTION: Using the Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patturajan, Meera
Gangolli, Esha A
Padigaru, Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baumgartner, Jason C.
Gerlach, Valerie
                                                                                                                                                                                                                                    Vernet, Corine A. M.
Malyankar, Uriel M
                                  Pena, Carol E. A.
Shimkets, Richard A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tchernev, Velizar T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spaderna, Steven K
Zerhusen, Bryan D
                                                                                                                                                                                                  Spytek, Kimberly A
                                                                                                                                                                                                                                                                                                                                  Gusev, Vladimir Y
                                                                                                                                Shenoy, Suresh G
Kekuda, Ramesh
                                                                                                                                                                                                                                                                                                                                                                                                                                   Furtak, Katarzyna
                                                                                                                                                                                                                                                                                                                                                                     Casman, Stacie J
Boldog, Ferenc L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liu, Xiaohong
                                                                                                                                                                                                                                                                                                   Guo, Xiaojia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
US-10-080-334-290
                                                                                                                                                                                                                                                                    Malyankar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 279214, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Cao, Yonda K.
APPLICANT: Sac, Yonda K.
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16;
                                                                                                                                                                             97 GGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAV 156
                                                                                                                            157 FILLVALVMFAWYR-----CRCSQQRREKKFF---LLEPQMKVAALRAGAQQGLS---- 203
                                                                                                                                                                                                                                                                                                                           503 LALSDELLASNNFRIFRTFVRKMHADLDYCPDADRYGRPLKPLERSAPEMPMERLLEATA 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          359 RVLDEAN--KAFLGCKVKLAAKVSGIHWWYRHPSHAA---ELTSGYYNLGGRDGY----- 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409 APIARMLAR-----HDGAVLNFTCAEMRNSEQ-----AEBALSAPEQ------ 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           446 ---LVQQVLSAGWREGVEVAČENALSRYDRRGYNOMLLNARPNGVGLSGAARRRVAAVTF 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97 GGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAV 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              157 FILLVALVMFAWYR-----CRCSQQRREKKFF---LLEPQMKVAALRAGAQQGLS---- 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204 -RASAEL-----S 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 FLAASLSAQNEGWDSP-----GE 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50 NTVMSCNISNAFSHVNIKLRA------HGQESAIFNEVAPGYFS---RDGWQLQVQ 96
                                                                                                                                                                                                                                                             ---WTPDSEPTPRPLALVFKPSPLGALELL---S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                          409 APIARMLAR-----HDGAVLNFTCAEMRNSEQ-----AEEALSAPEQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84; Indels 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.0%; Score 91.5; DB 16; Length 597; 19.9%; Pred. No. 4.3; tive 44; Mismatches 84; Indels 121.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , OTHER INFORMATION: Clone ID: MRT4577_186223C.1.pep
US-10-425-115-279214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 19.9
Matches 62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                POPLFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAPAFPF--DP 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POPLFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | | ||: ||
PAPAFPF--DP 571
                                                                                                                                                                                                                                                             204 -RASAEL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
US-10-425-115-279214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
US-10-080-334-290
                                                                                                                                                                                                                                                                                                                                                                                                238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                          셤
                                                                                                                                ઠે
                                                                                                                                                                                    a
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

10, ----VSVSWGENTVMSCNISNA 60 90 7.0%; Score 91; DB 15; Length 6620; 22.8%; Pred. No. 1.2e+02; Indels 34; Mismatches 102; 11 HVSQALGTLLFLAASLSAQNEGWDSPICTEGV----58; Conservative Query Match Best Local Similarity Matches 58; Conserv

Sequence 290, Application US/10080334; Publication No. US20040002584A1

```
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS
TOPOLOGY: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-755-559-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-755-559-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8, Applications of the control of the cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Appli
Sequence 6297, Ap
Sequence 8807, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5485, Ap
                                                                                                                                        October 17, 2005, 06:04:49; Search time 60 Seconds (without alignments) 308.549 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                              1 MQTCPLAFPGHVSQALGTLL......PLGALELLSPQPLFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 12,
Sequence 42,
Sequence 44,
Sequence 18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2
Sequence 2
Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               513545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lssued_Patents_AA:*
1: /cgn2_6/ptodata1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-755-559-1

US-09-39-774-1

US-09-997-165-4

US-09-997-165-8

US-09-997-165-8

US-09-949-016-8807

US-09-949-016-8807

US-09-489-038A-10298

US-09-489-038A-10298

US-09-489-038A-10298

US-09-489-038A-10298

US-09-499-016-6949

US-09-949-016-10490

US-09-949-050-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-430-503-8
US-09-328-352-5485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                          513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                            - protein search, using sw.model
                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match Length DB
                                                                                                                                                                                                                                       US-10-080-522-1
1308
                     Copyright
                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sed
                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                            OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š.
```

| Sequence 10974,     | Seguence 27810,      | Sequence 6422,     | Sequence 22, Appl | Sequence 24, Appl | Sequence 8501,     | Seguence 8896, A   | Sequence 22974,      | Sequence 9980, 1   | Sequence 9981, 7   | Sequence 9982, 1   | Sequence 11019,     | Sequence 121, Ap  | Sequence 157, Ap  | Sequence 216, A    | Sequence 4, Appli | Sequence 14, App  | Sequence 42, Appl |
|---------------------|----------------------|--------------------|-------------------|-------------------|--------------------|--------------------|----------------------|--------------------|--------------------|--------------------|---------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| US-09-949-016-10974 | US-09-252-991A-27810 | US-09-328-352-6422 | US-09-430-503-22  | US-09-430-503-24  | US-09-949-016-8501 | US-09-949-016-8896 | US-09-252-991A-22974 | US-09-949-016-9980 | US-09-949-016-9981 | US-09-949-016-9982 | US-09-902-540-11019 | US-10-237-551-121 | US-10-237-551-157 | US-10-237-551-216. | US-09-970-516-4   | US-09-817-676A-14 | US-09-530-139-42  |
| 4                   | 4                    | 4                  | m                 | m                 | 4                  | 4                  | 4                    | 4                  | 4                  | 4                  | 4                   | 4                 | 4                 | 4                  | 4                 | 4                 | 4                 |
| 313                 | 370                  | 583                | 209               | 209               | 310                | 310                | 343                  | 205                | 205                | 202                | 485                 | 545               | 545               | 547                | 618               | 618               | 225               |
| 6.2                 | 6.2                  | 6.2                | 6.2               | 6.2               | 6.2                | 6.2                | 6.1                  | 6.0                | 0.9                | 6.0                | 6.0                 | 6.0               | 6.0               | 6.0                | 6.0               | 6.0               | 0.9               |
| 81.5                | 81.5                 | 81                 | 80.5              | 80.5              | 80.5               | 80.5               | 79.5                 | 79                 | 79                 | . 79               | 79                  | 79                | 79                | 79                 | 79                | 79                | 78.5              |
| 28                  | 53                   | 30                 | 31                | 32                | 33                 | 34                 | 32                   | 36                 | 37                 | 38                 | 39                  | 40.               | 41                | 42                 | 43                | 44                | 45                |

### ALIGNMENTS

MESULA TARGET STATE OF THE STAT

g

임 ò ద ઠે g

ઠે

```
61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GHORNNROVTLEVSGAEPOSAPDIGFWPVDAVVTAVFILLVALVMFAWYRCRCSOORREK 180
                                             240
                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                      KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                          US-09-539-774-1

| Sequence 1, Application US/09539774
| Sequence 1, Application US/09539774
| Patent NO. 6350615|
| CENERAL INFORMATION:
| APPLICANT: KAUFMAN, RUSSEL E. APPLICANT: KALFMAN, RUSSEL E. APPLICANT: GENETAL RESIDENCE OF INVENTION: GELS | TITLE OF INVENTION: GELS | TITLE OF INVENTION: GELS | TITLE OF INVENTION: GELS | ADDRESSEE NIXON & VANDERHYE P.C. |
| CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSE: NIXON & VANDERHYE P.C. |
| STREET: 1100 NORTH GLEBE ROAD, 8TH FLOOR |
| CTATE OF INVENTION | STREET | STREET | STREET |
| CTATE OF INVENTION | STREET |
| CTATE OF INVENTION | STREET |
| CTATE OF INVENTION |
| STREET | STREET | STREET |
| CTATE OF INVENTION |
| STREET | STREET | STREET |
| CTATE OF INVENTION |
| STREET | STREET | STREET |
| CTATE OF INVENTION |
| STREET | STREET | STREET |
| STREET | STREET | STRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1308; DB 3; Length 248; 100.0%; Pred. No. 2.6e-139; Live 0; Mismatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 22201-4714

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/09/539,774
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRICH APPLICATION DATA:
APPLICATION NUMBER: 09/210,474
FILING DATE:
ATTOCNEY/AGENT INFORMATION:
NAME: WILSON, MARY J.
REGISTRATION NUMBER: 32,955
REGISTRATION NUMBER: 1579-116
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (703) 816-400
TELEFAR. (703) 916-4100
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein US-09-539-774-1
                                                                                                                                                                                                                                                          241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                              LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                        121
                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                              g
                                                                   q
                                                                                                                                         à
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                 GHORNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                            KFFLLEPOMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1308; DB 3; Length 248; 100.0%; Pred. No. 2.6e-139; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: KAUFNAN, RUSSEL E.
APPLICANT: SLENTZ-KESLER, KIMBERLY
TITLE OF INVENTION: GENE PRODUCT OVER EXPRESSED IN CANCER
TITLE OF INVENTION: CELLS
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 22201-4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/210,474
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: NIXON & VANDERHYE P.C.
1100 NORTH GLEBE ROAD, 8TH FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/755,559
FILING DATE: 22-NOV-1996
ATTOCNEY AGGNT INFORMATION:
NAME: WILSON, MARY J.
REGISTRATION NUMBER: 32,955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 1579-116
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-210-474-1; Sequence 1, Application US/09210474; Patent No. 6072034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (703) 816-4100
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 248 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.0
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear; MOLECULE TYPE: protein US-09-210-474-1
                                                                                                                                                                                                                                                                                                                                                   LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                       LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: ARLINGTON
STATE: VIRGINIA
COUNTRY: U.S.A.
ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
STREET: 11
                                                      61
                                                                                                                 121
                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
```

ò q ò

g ò

ò

```
Sequence 8807, Application US/09949016

Sequence 8807, Application US/09949016

RENERAL INFORMATION:
APPLICANT: USHYEN,
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR PLICEATION NUMBER: 60/231,498

PRIOR PLICEATION NUMBER: 60/231,498

NUMBER OF SEQ ID NOS: 207012

SEQ ID NOS: 207012

SEQ ID NO 9807
                                                                                                                                                                                                                                                                                                                                                                                                     61 FSHVNIKLRAHGQESA1FNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 GHORNNROVTLEVSGAEPOSAPDIGFWPVPAVVTAVFILLVALVMFAWYRCRCSQORREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                            .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .,
                                                                                                                                                                                                                                  Length 248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1308; DB 4; Length 258; 100.0%; Pred. No. 2.7e-139; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                  ; Score 1308; DB 4;
; Pred. No. 2.6e-139;
0; Mismatches 0;
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 248
TYPE: PRT
                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.0%;
Matches 248; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0
Matches 248; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Human
US-09-949-016-8807
                                                                                                                                                                ), ORGANISM: Human
US-09-949-016-6297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
US-09-049-016-6297
US-09-949-016-6297
Sequence 6297, Application US/09949016
Federal No. 6812339
GENERAL INFORMATION:
GENERAL TOWN
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: UNITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT TELING DATE: 2000-04-14
FRIOR APPLICATION NUMBER: 60/241,755
FRIOR FILING DATE: 2000-10-20
FRIOR PILING DATE: 2000-10-20
FRIOR APPLICATION NUMBER: 60/237,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                 181 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
  GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MQTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MOTCPLAFPGHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 248;
                                                                                                                                                                                                                                                                                                                                                                                   USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 1308; DB 4;
100.0%; Pred. No. 2.6e-139;
cive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                              APPLICANT: Lyman, Stewart D.
APPLICANT: Lyman, Stewart D.
APPLICANT: Fanslow, William C.
TITLE OF INVENTION: LIGAND FOR CD7 AND METHODS OF FILE PERENRE: 2913-US
CURRENT APPLICATION NUMBER: US/09/997,165
CURRENT FILING DATE: 2001-11-27
PRIOR APPLICATION NUMBER: PCT/US00/14612
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
NUMBER: OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NOS: 0
                                                                                                                                                                                                                                                                                                                                                                                   Q.
                                                                                                                                                                                                                                                                   Sequence 4, Application US/09997165
Patent No. 6762030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.
Matches 248; Conservative
                                                                                                                             241 LFPYAADP 248
                                                                                                                                                     ||||||||
241 LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LFPYAADP 248
                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                   US-09-997-165-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-997-165-4
    121
                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
```

셤

ò g ò 요 ò

g ò 9

180 240 240

09 9

Gaps

```
RESULT 9
US-09-252-991A-27771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-252-991A-27771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                 6
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10298, Application US/09489039A
Patent No. 6610836 Application US/09489039A
Patent No. 6610836 Application US/09489039A
Patent No. 6610836 Application US/09489039A
GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: NUCLEIC ACID AND THERAPEUTICS
FILE REFERENCE: 2709-2004001
CURRENT FILING DATE: 2000-01-27
CURRENT FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 10298
LENGTH: 1171
                                                                  KFFLLEPOMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 180
                   131 GHQRNNRQVTLEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQQRREK 190
                                                                                         191 KFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPRPLALVFKPSPLGALELLSPQP 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70 AHGQESAIFNEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQV 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     130 TLEVSGAEPQSAPDTGFWPVP------AVVTAVFILLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 GLFPRMLWALLLLAASLNAHNDVWDEPCCTEHEVSVNRGSRVVMACNISNNLRDVTIELV 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 GHVSQALGTLLFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNAFSHVNIKLR
                                                                                                                                                                                                                                                                                                                 APPLICANT: Lyman, Stewart D.
APPLICANT: Evanion, Stewart D.
APPLICANT: Fanslow, William C.
FITLE OF INVENTION: LIGAND FOR CD7 AND METHODS OF USE THEREOF
FILE REFERENCE: 2913-US
CURRENT FILING DATE: 2001-11-27
PRIOR APPLICATION NUMBER: PCT/USOO/14612
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 1999-05-28
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PATENTIN Ver. 2.0
SOFTWARE: PATENTIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24.9%; Score 326; DB 4; 37.8%; Pred. No. 1.9e-28; ive 25; Mismatches 73.
                                                                                                                                                                                                                                                                   ; Sequence 8, Application US/09997165; Patent No. 6762030; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      177 RREKKFFLLEPQMKVA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----KQFPVAPQIQMS 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                         LFPYAADP 248
                                                                                                                                                                           251 LFPYAADP 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 74; Conservé
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Mus sp.
US-09-997-165-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
US-09-489-039A-10298
                                                                                                                                                                                                                                                    -09-997-165-8
                                                                                                                                         241
                                                                    181
                            g
                                                                    ò
                                                                                           g
                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

```
Sequence 27711, Application US/09252991A

Patent No. 6551795
GENERAL INFORMATION
ADDITIONAL SECURITY: MARC J. Rubenfield et al.
APPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT FILING DATE: 1999-02-18
FRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 FSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQ---LQVQGGVAQLVIKGARDSHAGLYMW 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65 NI-KLRAHGQESAIF--NEVAPGYFSRDGWQLQVQGGVAQLVIKGARDSHAGLYMWHLVG 121
                                                                                                                                                                                                                      122 HORNNROVT----LEVSGAEPQSAPDTGFWPVPAVVTAVFILLVALVMFAWYRCRCSQOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192 MVTAPLVMPEVITGLSLLLLFVA---MQLIGWPQ---ERGIVTI-WIAHT-----SFC
                                                                                                                                                                                     -VSWGENTV - - - MSCNISNAFSHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MOTCPLAFPGHVSQALGTLIFLAASLSAQNEGWDSPICTEGVVSVSWGENTVMSCNISNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     118 HLVGHQRNNRQVTLEVSG-----AEPQSAPDTGFWPVPAVVTAVFILLVAL-VMFAWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178 REKKFFLLEPQMK--VAALRAGAQQG-------LSRASAELWTPDSEP--
                                                                                                                                   61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            170 RCRCSQQRREKKFFLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTP 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---RRAIQQAMEETATD-WQKGS-PTP 380
                                                                                Length 1171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 381;
                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                   96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91;
                                                                              Query Match 6.9%; Score 90.5; DB 4; Best Local Similarity 22.7%; Pred. No. 1.1; Matches 57; Conservative 37; Mismatches 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
6.5%; Score 84.5; DB 4;
Best Local Similarity 26.2%; Pred. No. 0.91;
Matches 60; Conservative 27; Mismatches 91;
                                                                                                                                                                                     19 LLFLAASLSAQNEGWDSPICTEGVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Pseudomonas aeruginosa
ORGANISM: Klebsiella pneumoniae US-09-489-039A-10298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217 TPRPLALVFKP 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  303 ARGPLDATFGP 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | :::||
350 FTRQAEERR----
```

```
--TGFW 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 HVNIKLRAHGQESAIFNEVAPGYFSRD-------GWQLQVQGGVAQ----LVIK 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : | : | : | : | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | | 1: | 1: | | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1: | 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94 OVOGGVAQLVIKGARDSHAGLYMWHL------VGHQRNNRQVTLEVSGAEPQSAPDT 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66 TGGLTSVSWSFQPEGADTTVS-----FFHYS------QGQVYLGNYPPFKDRISWAG 111
                                                     8 FPGH-VSQALGTLLFLAASLSAQNE----GWDSPICTEGVVSVSWGENTVMSCNISNAFS 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 48, Application US/09430503
Fatent No. 6355786
GENERAL INFORMATION:
APPLICANT: Zhao, Zhizhuang
APPLICANT: Zhao, Zhizhuang
TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
FILE REPERENKE: Attorney Docket No. 6355786 1242-11/2
CURRENT APPLICATION NUMBER: US/09/430,503
CURRENT FILING DATE: 1999-10-29
NUMBER OF SEQ ID NOS: 49
SEQ ID NO 48
LENGTH: 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 46, Application US/09430503

Sequence 46, Application US/09430503

Sequence 46, Application US/09430503

Patent No. 6355704

GENERAL INFORMATION:
TITLE OF INVENTION: PITERAPEUTICAND SCREENING METHODS USING SAME
TITLE OF INVENTION: THERAPEUTICAND SCREENING METHODS USING SAME
CURRENT APPLICATION VUNBER: US/09/430,503

CURRENT APPLICATION VUNBER: US/09/430,503

NUMBER OF SEQ ID NOS: 49

SOFTWARE PATENT VOICE 40

SOFTWARE PAT
                                                                                                     4 FPGYNLSGAVASFLFILLTMKQSEDFRVIGPAHPILA-GV-----GEDALLTCQLLPKRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39 TEGVVSVSW-----GENTVMSCNISNAFSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 6.4%; Score 83.5; DB 3; Length 199; Best Local Similarity 21.9%; Pred. No. 0.44; Matches 34; Conservative 28; Mismatches 54; Indels 39
                                                                                                                                                                                                                                                                                                                                                                                                                          106 GARDSHAGLYMWHLV-GHQRNNRQVTLEVSGAEPQSAPD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      145 GFWPVPAVVTAVFI---LLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-09-430-503-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171 ÞEÞQV 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVPAV 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 199
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-430-503-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-430-503-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             148
                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                               g
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESOUT INCOME. Application US/09949016

Sequence 11026, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR PELING DATE: 2000-10-20

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 11026

LENGTH: 455
                   Sequence 6949, Application US/09949016

Sequence 6949, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
FOLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TILLE REFERENCE: CLOO1307

CURRENT FILING DATE: 2000-04-14

PRIOR PPLICATION NUMBER: 60/241,755

PRIOR PPLICATION NUMBER: 60/241,755

PRIOR PILING DATE: 2000-10-20

PRIOR PLILING DATE: 2000-10-03

PRIOR PLILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOCTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 HVNIKLRAHGOESAIFNEVAPGYFSRD-----GWQLQVQGGVAQ----LVIK 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---TGFW 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113 NIQPSDNGQYWCHFQDGNYCGETSLLLKVAGL--GSAPSIHMEGPGESGVQLVCTARGWF 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58 TMHVEVRWYRSEPS----TPVFVHRDGVEVTEMOMEEYRGWVEWIENGIAKGNVALKIH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 FPGH-VSQALGTLLFLAASLSAQNE----GWDSPICTEGVVSVSWGENTVMSCNISNAFS 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.5%; Score 84.5; DB 4; Length 455; llarity 22.2%; Pred. No. 1.2; Conservative 33; Mismatches 58; Indels 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.5%; Score 84.5; DB 4; Length 455; 22.2%; Pred. No. 1.2; tive 33; Mismatches 58; Indels 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106 GARDSHAGLYMWHLV-GHQRNNRQVTLEVSGAEPQSAPD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 22.29
Matches 41; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 41; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148 PVPAV 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171 PEPQV 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-949-016-11026
US-09-949-016-6949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Human
US-09-949-016-6949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

ð g ઠે

```
DETECTION AND USES THEREOF
                                               9
                                                                                                              94 QVQGGVAQLVIKGARDSHAGLYMWHL-----VGHQRNNRQVTLEVSGAEPQSAPDT 144
                                                                                                                                                                                                              112 DLDKKDASINİENMQFIHNGTYICDVKNPPDIVVQPGH------IRIYVVEKENLPVF 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          651 QSSHCVYGEHCPEGERTIXSA-----QEVDIQVRGPGACPQVEGLAGP-HLVPVGWESH 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VQGGVAQLVIKGARDSHAGLYMWHLVGHQRNNRQVTLEVSGAEPQSAPDTGF----- 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 704 LALRVRNÍ--QHFRGLPÁSFHCWLELPGELRGLPATLE-----ETÁGDSGLIHCQAHQF 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------WPVPAVVT-----AVFILLVALVMFAWYRCR-----CSQQRREKKF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183 FLLEPQMKVAALRAGAQQGLSRASAELWTPDSEPTPR--PLALVFKPSPLGALELLSPQP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                --CQAANRSLGCLWCADGQPACRYGPLC-----PPGAVELLCPAP 838
                                                                                   39 TEGVVSVSW-----GENTVMSCNISNAFSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQL 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---- DSPICTEGVVSVSW-- 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --GENTVMSCNISNAFSHVNIKLRAHGQESAIFNEVAPGYFSRDGWQLQ 94
                                            Gaps
                                            39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels 117;
                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 10490, Application US/09949016

Fatent No. 6812339

GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND FILE REFERENCE: CLO01307.
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
FRIOR PAPLICATION NUMBER: 60/237,768
FRIOR PRILING DATE: 2000-10-20
FRIOR PRILING DATE: 2000-10-03
FRIOR PAPLICATION NUMBER: 60/237,768
FRIOR PAPLICATION NUMBER: 60/237,768
FRIOR PALING DATE: 2000-10-03
FRIOR PAPLICATION NUMBER: 60/231,498
FRIOR PILING DATE: 2000-09-08
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 10492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1912;
6.4%; Score 83.5; DB 3; Length 199; 21.9%; Pred. No. 0.44; tive 28; Mismatches 54; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90;
                                                                                                                                                                                                                                                           145 GFWPVPAVVTAVFI---LLVALVMFAWYRCRCSQQ 176
                                                                                                                                                                                                                                                                                      DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 PLAFPG--HVSQALGTLLFLAASLSAQNEGW---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 6.4%; Score 83.5; I Best Local Similarity 20.7%; Pred. No. 14; Matches 62; Conservative 31; Mismatches
                      Best Local Similarity 21.99
Matches 34, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Human
US-09-949-016-10490
                                                                                                                                                                                                                                                                                                                                                                                       US-09-949-016-10490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           801
    Query Match
                                                                                                                           В
                                                                                                                                                                      à
                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

Sequence 43788, Application US/09270767 Parent No. 6703491 GENERAL INFORMATION: APPLICANT: Homburger et al.

RESULT 15 US-09-270-767-43788

```
66
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFREBNCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTMARE: PatentIn Ver. 2.0
SEQ ID NO 43788
LENGTH: 152
                                                                                                                                                                                                                                                                                                                                                                        170 RCRCSQQRREKKFFLL---EPQMK-----VAALRAGAQQGLSRASAELWTPDSEPTP-
                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                26;
                                                                                                                                                                                                                                                                                        6.3%; Score 83; DB 4; Length 152; 33.3%; Pred. No. 0.33;
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       219 --RP-LALVFKPSPLGALELLSPQPLFPYAADP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 RRRPALALILAPSPFGGSQ-IAPSPLLPVAPSP 131
                                                                                                                                                                                                                                                                                                                                9; Mismatches
                                                                                                                                                                                                                            OTHER INFORMATION: Xaa means any amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Search completed: October 17, 2005, 07:10:47 Job time : 109 secs
                                                                                                                                                                                  ORGANISM: Drosophila melanogaster FEATURE:
                                                                                                                                                                                                                                                                                                         Best Local Similarity 33.3
Matches 31; Conservative
                                                                                                                                                                                                                                               US-09-270-767-43788
                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      а
                                                                                                                                                                                                                                                                                                                                                                          8
```